On the Preparation of New Grounds.

THE season being at hand for the execution of ground-work in the improvement of new places, we have thought that a few hints might be offered on the subject not altogether unprofitably. Wherever we look, we see elegant and costly dwellings surrounded by incomplete, neglected grounds, looking precisely as though the proprietor had spent his last dollar on his buildings. One reason for this, is our universal hurry. No sooner do we decide upon the erection of a dwelling, than up it goes like magic; the finishing stroke is given while the mortar in the foundation is yet scarcely dry. The garden and grounds must be completed with corresponding dispatch; right or wrong, it must be done *quickly* or not at all. Another reason is, that very few people take into account the cost of improving their grounds in such a manner as to correspond with the buildings. The builder's estimates alone are looked to; and by the time the building is finished, with all its extras, the proprietor's funds and patience have both been severely taxed, and the gardens and grounds stand a poor chance for their appropriate share of attention. Another reason still, is that the proper preparation of ground for gardens, lawns, and plantations, is neither well understood nor appreciated. Most people seem to imagine that a team with a plow and a scraper can do all that is necessary; and so the ground is plowed and scraped and levelled, and it is then ready for planting. Now this will never do; such a system, or rather such a course, is not only disgraceful but unprofitable, because people who plant in such ground soon find out their mistakes, and are compelled to correct them in a very disagreeable and costly way.

We therefore beg gentlemen who are about fitting up country or suburban residences not to overlook the improvement of their grounds in their estimates — not to regard it as a mere item unworthy of note, but to count the cost carefully, and go about the work deliberately, with a firm purpose to do whatever be done *thoroughly*. Determine at the outset to be patient, and in the end you will secure results that will be alike creditable and satisfactory.

The operations on ground to fit it either for useful or ornamental gardening comprise grading or leveling, draining, trenching, and manuring. When we speak of leveling, or grading, we do not wish to be understood as supposing that every one will cut down all the natural undulations of the surface, for this would, in many cases, destroy some of the finest features of the ground; but there are on almost all new places certain abrupt or broken spots that must be brought into a proper shape by grading. This is more particularly the case in small places, where a broken surface is not allowable to any considerable extent. Now, when laborers are directed to grade a piece of ground, their common method is to draw off the surface with a scraper

into the lowest parts until the leveling is accomplished, leaving the ground in a state totally unfit for the growth of either trees or grass; and that, too, even after a great amount of labor has been expended in replacing the surface. We can at this moment point to multitudes of gardens, and to many important public grounds, ruined by this ignorant process. The true way is, to throw all the surface soil that is worth saving on one side, remove the subsoil to the proper depth, and then to replace the natural surface. Draining is not absolutely necessary in all cases, but yet there are few in which it can be entirely dispensed with. There can be no healthy or luxuriant growth of trees or plants where there is stagnant mositure in the soils. The common opinion is, that draining is only necessary when water lodges on the surface; but this is a great error, for many soils that appear perfectly dry on the surface stand in the greatest need of draining. A stiff clay subsoil, or a mixture of sand, clay, and gravel, almost as hard as iron, holds water like a basin, and the ground, although apparently dry on the surface, becomes sour, and bakes together in a solid impervious mass. Beside, it is unhealthy to live in the neighborhood of wet or badly drained soils, and unpleasant to cultivate them. Perfect drainage is one thing indispensable, and fortunately the means of doing it are within every one's reach. Where stones abound these may be used; otherwise, tile, which is now manufactured extensively in many parts of the country. We advise every one who has grounds to improve, and desire full and reliable information on the subject, to refer to the reports of Mr. T. G. Yeomans, of Walworth, N. Y., or Mr. John Johnson, of Geneva, to the New York State Agricultural Society.*

Next to draining comes the process of deepening by trenching or subsoil plowing. This is an operation of the utmost importance in all soils and situations. In this country we are subject in summer to severe protracted drouths, during which trees, plants, or grass, on a shallow soil can barely sustain a feeble existence. In small places trenching is preferable, and for the fruit and kitchen garden we would recommend it in all cases. It is the true way to give the soil a thorough and permanent deepening. It is not merely an additional depth we gain by trenching; it also enables surplus moisture to pass off freely into the drains, and keeps the soil sweet and porous. Scarcely a day passes that we do not see or hear the most conclusive evidences in favor of trenching. A short time ago a gentleman said to us, "I have made up my mind that it is perfectly idle to attempt making a lawn, or to expect a luxuriant growth of trees in untrenched soil. I have tried to do it for seven years, and during all that time had the mortification to see my grass nearly die out every summer, and the trees grow by inches instead of feet." He finally made up his mind to try what effect trenching would have, and has now the satisfaction to see his trees grow vigorously, and his lawn as green as emerald in the dryest times. "Now," he says, "I advise every man to trench." Every experienced cultivator knows well the advantages of a deep soil. No where is its effects more obvious than on the lawn. In our own grounds one portion of a small plot was trenched deeply before it was seeded, and it rejoices in the deepest verdure in all weathers; another portion was

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Next comes manuring; and in this let there be no stinginess. Whoever contemplates the improvement of ground should begin early to prepare manures and composts, for this can not be done in a few days or weeks. It should be prepared a year beforehand, so as to be well decomposed and thoroughly mixed in order that it may not fill the land with all manner of noxious weeds. We would spread it over the surface and plow it down in the autumn at the first plowing, so that it might be properly incorporated with soil during subsequent working. The needful quantity of manure will, of course, vary according to the natural fertility and condition of the soil. In some cases, two inches deep spread evenly over the surface may be sufficient; in others, twice that would scarcely suffice. At all events, *be liberal.*

Our purpose at present is not so much to treat of these primary ground-works through the detail of practice, as to urge the necessity of making them the foundation of all improvements. We hope we shall never again hear it said, "I will plant my trees now and improve the ground afterwards, as I have leisure." Would it not be as wise to say, "I will erect my house now, and hereafter, when I have leisure, I will dig the cellars and construct the foundation?"

There is now a great and greatly increasing desire for rural homes. Hundreds are leaving the crowded cities and selecting homes for themselves and families in their suburbs. As our railroads increase, and furnish better facilities for communication between town and country, we may expect this state of things to continue. It is important, then, that the few simple truths we have stated be well understood. The pleasure of a surburban dwelling depends materially on the comfort and beauty which the gardens and grounds afford; and when they are neglected, or so mismanaged as to afford neither beauty or comfort, the great aim of rural life is lost. The growth of taste will, we trust, soon bring about a state of things in which men will not spend ten thousand dollars freely on a house, and one hundred dollars grudgingly on the garden.

GATHERING AND PRESERVATION OF FRUITS.

This is a subject respecting which we have much to learn in this country; and considering the vast amount of capital invested in fruit culture, and the prospective importance of the business in a commercial point of view, it becomes worthy of serious and immediate attention. How many of those who are in the possession of orchards and fruit-gardens know exactly when even to *gather* fruits in order to secure their greatest possible amount of excellence? May we not safely say that three-fourths of nearly all our summer fruits are consumed in an immature state? The keeping of fruits in winter, and the packing for distant markets, are questions that concern deeply the extensive orchardists of this country. We have translated from the *Revue Horticole* the following observations on this subject by Prof. Dubriel, formerly of Rouen and now of Paris. They contain many valuable hints and suggestions worthy of attentive perusal:

"The preservation of fruits is a question intimately connected with the fruit-garden. This should furnish during the entire year the same quantity of the best possible fruits. In order to do this it is true we must plant an equal number of varieties ripening their fruits during each month of the year. But this will be insufficient unless we adopt a mode of preservation which will retard the ripening of fruits to mid-winter, spring, or even the following summer. The fruit-garden can not give the results expected from it, if we are deprived of its products from February till June, when the earliest fruits begin to ripen. This question, then, has a certain importance, not only for those who gather and consume the fruit, but for those who deal in fruits and who without proper modes of keeping are exposed to great losses. As the mode of gathering has a certain influence on the preservation of fruits, we will first treat of that operation.

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"1st. Degree of Maturity.—Fruits should be gathered when they present a sufficient degree of maturity; and in this respect the different species of fruits require different treatment.

"*All the Stone Fruits*, the cherries excepted, should be taken from the tree three or four days before their absolute maturity.

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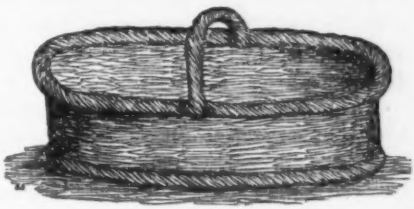

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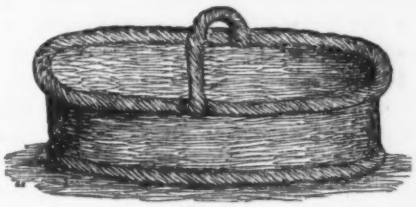

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"*The Dry Fruits*, such as filberts, chestnuts, &c., are gathered at the moment when they detach themselves from the trees.

"In gathering fruits, a dry time and a cloudless sky should be chosen; and the middle of the day, from noon to four o'clock, is the best time to operate, as the fruits are charged with less humidity, the flavor is more concentrated, and those destined to be preserved keep better. This rule applies to all fruits.

"2d. MODE OF GATHERING.—The best method of gathering fruits consists in detaching them one by one with the hand. All pressure should be avoided as far as possible, as every bruise is followed by a brown spot which gives place to and brings on the rapid decay of the entire fruit.

II. PRESERVATION.

"The preservation of fruits can only be applied to those which ripen during the winter, and which, detached from the tree before the first frosts, are placed under shelter from the cold to complete their maturity. The grape only is an exception to this. Summer and autumn fruits are also preserved, but only by the aid of certain proceedings such as *drying*, and cooking more or less perfect, added to the exclusion of air or the addition of sugar—proceedings which result in discoloring the fruit and altering their flavor more or less sensibly. We can not here describe the different methods.

"To preserve the fruits of winter, it is necessary, first, to prevent the action of frost, which disorganizes them completely; second, to retard the progress of their maturity in such a manner that a certain number of them will not ripen till towards the month of May in the following year. Experience has demonstrated that decomposition succeeds quite rapidly to complete maturity, and that it is impossible to prolong their preservation beyond this point.

"To obtain more or less perfectly the two-fold condition which we come to describe, depends upon the construction of the place in which the fruits are deposited, the fruit-room, and to the care which they receive.

"1st. OF THE FRUIT-ROOM.—The fruit-room will give the more satisfactory results in proportion as it fills the six following conditions:

"1. *That its temperature be uniformly equal.* It is by changes of temperature, which expand or rarify the liquids contained in the fruits, that fermentation is excited and the interior organization destroyed, phenomena from which result maturity or ripeness.

"2. *That this temperature should be eight to ten degrees above freezing.* A higher temperature favors fermentation too much. If, on the contrary, it is lowered to two or three degrees, this fermentation ceases and maturation becomes stationary. Thus we see fruits preserved five or six months in an ice-house. In this case the end aimed at has been exceeded; for we are obliged, in taking them from the ice-house, to expose the fruits for a certain length of time to a higher temperature, in order to ripen them. The fruits thus preserved ripen afterwards with difficulty, and their quality is often found altered.

"3. *That the Fruit-Room be deprived of the action of the light.* This agent also accelerates maturation in facilitating the chemical reactions which produce this phenomenon.

"4. *That all the carbonic acid disengaged from the fruits be retained in its atmosphere.* This gas, it appears from experiments of COUVERCHEL, contributes powerfully to the preservation of fruits.

"5. *That the atmosphere be more dry than humid.* Humidity is also a condition necessary to fermentation; it diminishes the resistence of tissue in the fruits, and favors the effusion of its juices. It is, then, proper to avoid its accumulation in the fruit-room; but it must never be completely dry, for the fruits losing then, by evaporation, a considerable quantity of the aqueous fluids, wither, dry up, and do not ripen.

"6. *That the fruits are so placed as to diminish as far as possible the pressure which they exercise upon each other.* This continued pressure determines the rupture of the vessels and cells toward the point of pressure, the different fluids are mingled, and this mixture promotes the chemical combinations which result in maturity.

"We propose to construct a fruit-room to fulfil these conditions, in the following manner:

"We would choose a very dry soil, somewhat elevated, facing the north, and completely shaded from the sun by high plantations of evergreen trees. The dimensions are to be determined by the quantity of fruit to be preserved. That of which we give the plan (fig. 2) is 15 feet long in the inside, 12 feet wide, and 9 feet high. This will give place to 8,000 fruits, allowing each one to occupy 4 inches square. It is sunk 2½ feet in the ground; and if the soil is very dry, it may be 3 feet. This enables us the more easily to guard the atmosphere against the external temperature. To prevent surface water from accumulating in the surrounding soil and filtering into the fruit-room, the surface of the ground should descend from the walls, and these should be constructed of cement a foot above the soil.

"This fruit-room is inclosed by two walls, (A and B,) leaving between them an open space (G) about 10 inches wide. This stratum of air interposed between the two walls is the surest means of protecting the interior from the exterior temperature. The two walls are each 12 inches thick, constructed with a sort of mortar, or mud, made of clay and straw. This material is cheap, and on the whole a bad conductor of heat, and on this account preferable to common masonry. The walls are pierced with six openings — three in the inside and three in the outside walls — the first similar and exactly opposite to the last. The openings for the outside wall are —

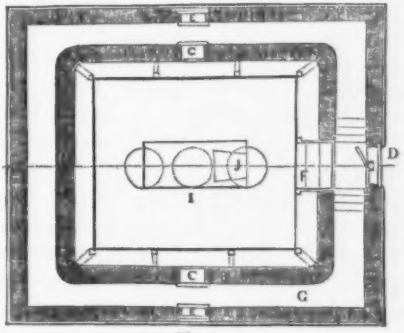


Fig. 2.

"1. A double door (D): the outside door opens out; that of the interior inward, and it opens in two parts like a shutter. When the frosts are severe, the space between the two doors should be filled with straw.

"2. Two windows, (E,) about 20 inches square, placed on each side and opening at 18 inches from the soil, and closed by a double sash, of which the one opens out and the other in. The space between the two sashes should also be carefully filled with straw at the commencement of winter.

"The inside wall has a door (F) and two windows (C); but here the door is simple; the windows are also closed with two sashes, the outside one sliding in a groove and the other opening out.

"As soon as the fruits are collected in the fruit-room, the joints and openings around the windows should be filled with paper, to prevent the air from the space between the walls entering the fruit-room. The four windows are only intended to admit air and light necessary to dry and ventilate the fruit-room before gathering in the fruit. We shall presently see that it is easy to get rid of the interior humidity produced by the presence of fruits, without employing currents of air.

"The ceiling, sustained by beams, is composed of a layer of moss sustained by laths, and covered above and below with a layer of plaster; the whole being one foot thick. This mode of construction is necessary to exclude the influence of the exterior temperature.

"The roof is thatched a foot thick with straw, and the dormer may be used for storing fodder in; but the points of union between the dormer and outer wall must be perfectly close.

"The floor is of oak. The walls, and even the ceiling, should have a covering of boards. These precautions serve to maintain an equal temperature, to exclude exterior moisture, and to completely separate the atmosphere of the fruit-room from that without.

"All the interior walls, from within 18 inches of the floor to the ceiling, are furnished with board shelves, 2 feet wide, placed 10 inches apart. To facilitate the arrangement of the fruit, the upper shelves (A, fig. 3,) are made to slope downwards in front at an angle of 45 deg.; and this decreases as they come down, until the lower ones within four or five feet of the floor are horizontal.

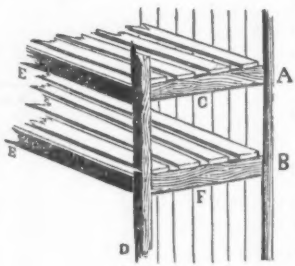


Fig. 3.

"The tables or shelves are all made of narrow strips about 4 inches wide; and to facilitate the circulation of air, about an inch of space is left between each strip. The shelves are fixed to the wall by brackets sustained in front by upright posts (D) placed 4½ feet from each other. The cross-pieces (E) attached to the uprights, support horizontal laths (F) or oblique ones (G).

"In the center of the fruit-room we reserve a table (I, fig. 2,) 6 feet long and 2½ feet wide, separated from the shelves by a space of 3 feet. This table serves to receive

the fruit temporarily, and has a narrow moulding round the edge to keep it from falling off. All the shelves have similar borders.

"Such is the mode of construction we propose for a fruit-room, by the aid of which we can easily obtain many of the results we have indicated as necessary; that is to say, it will enable us to maintain an equal temperature of 46 to 50 deg. Fahrenheit above zero, and that the action of the light is prevented. As for the other necessary conditions, we shall presently point out the means to secure them. In certain circumstances, much of the expense of a construction like the above might be avoided. If, for example, there were a subterranean cave or a grotto in a rock, a fruit-room might be established in either place, provided they be very dry. The interior fitting up would be the same.

"As the fruits are brought into the fruit-room, they are deposited on the table, which is covered with a thin layer of dry moss. There they are assorted; each variety is placed separate, and all unsound and bruised specimens are taken out. The sound fruits are left on the table two or three days, in order that they may part with some of their moisture. The shelves are then covered with a thin layer of dry moss or cotton, to prevent the fruits from being bruised by their own weight. We then proceed to wipe the fruits lightly with a piece of soft flannel, and arrange them in rows on the shelves, leaving a space of a fourth of an inch between each, and keeping each variety separate, and placing similar varieties next each other.

"The fruit-room may not only serve for the preservation of *kernel fruits*, but for *grapes*. The Chasselas varieties in particular keep well in this way. We proceed with them as follows: Each bunch is cleared of all decaying or unsound berries and fixed by the *point* on a small wire hook formed like an S (fig. 4). Thus attached it is less liable to decay, as the berries have a tendency to separate from each other. The bunches are then hung by the other end of the S hook around one or two hoops (fig. 5) placed one above the other, and suspended from the ceiling of the room, and rendered moveable by two small pullies. If it be desired to keep in this way a large quantity of grapes, space may be economized by substituting for the hoops wooden frames (fig. 6) about four feet square. These frames are furnished with strips or rods separated from each other by a space of 3 or 4 inches, and having on one side small pins to suspend the crotchets of grapes on. These frames are also fixed to the ceiling so as to occupy all the surface, and, like the hoops, to move up and down as may be necessary.

Fig. 4.

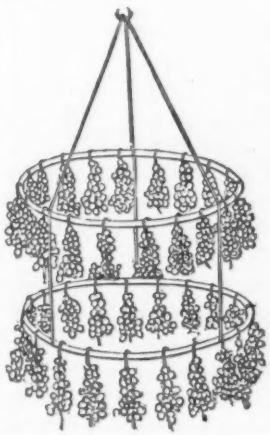


Fig. 5.

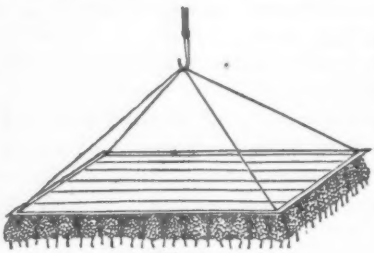


Fig. 6.

"The grape-growers of Thomery, who preserve a large quantity of grapes, content themselves with placing bunches on wire frames, on which they probably spread a thin layer of very dry fern.

"When all the fruits are thus arranged in the fruit-room, the doors and windows are left open during the day, unless in wet weather. Eight days exposure to the air in this way will be necessary to deprive the fruits of their surplus moisture. After that, a dry and cold time is chosen to close hermetically all the openings. The doors must be opened no more, except when necessary to enter.

"Until the present time we have employed no other means to remove moisture from the fruit-room but by creating in the interior, currents of air more or less intense. This mode is attended with serious inconveniences for the preservation of fruit. In the first place it produces an equilibrium of temperature between the atmosphere of the fruit-room and the exterior, and this change is very injurious to the fruits. In the second place a glare of light is instantly admitted to the fruits, and this is no less injurious than the change of temperature. In fine, this vicious method should not be practiced unless the exterior temperature is not below the freezing point and the weather is dry. In the winter, however, the weather is generally the reverse of this, and the fruits have to be abandoned to a destructive moisture.

"To escape this difficulty, we advise the use of *chloride of calcium*. This has the property of absorbing so great a quantity of moisture, (about double its own weight,) that it becomes liquified after being exposed for a certain time to a moist atmosphere. Fresh lime has the same property of absorbing moisture, but at the same time it absorbs the carbonic acid set free by the fruits, and it is important to save this gas, as it aids materially in preserving them.

"To employ the *chloride of calcium*, a sort of wooden box should be constructed, (A, fig. 7,) lined with lead, (F,) about 18 inches wide and 4 inches deep. It is raised abont 18 inches from the floor, on a small table (B) having one of its sides (C) about 1½ inches lower than the other. At the middle of the lowest side of the box a small mouth is fixed for the liquified chloride to run over into a stone jar (E) placed below it. The chloride is spread in the box in small porous particles, very dry, and about 3 inches thick; and if the quantity employed be entirely liquified before the fruit is consumed, a fresh supply may be added. About fifty pounds applied at three times is sufficient for a fruit-room such as the one described above. The liquid which results from this

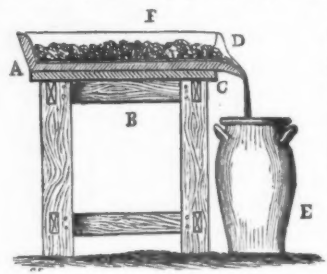
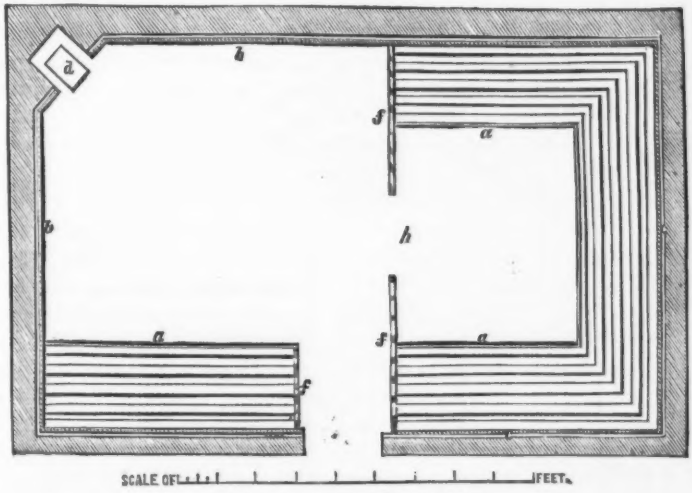


Fig. 7.

operation should be carefully saved in the jar, and be kept covered until the following season. When the fruit-room is filled anew, the liquid may be put in a brass kettle and placed over the fire, where it will soon evaporate to perfect dryness, and may be employed again in the same manner as before.

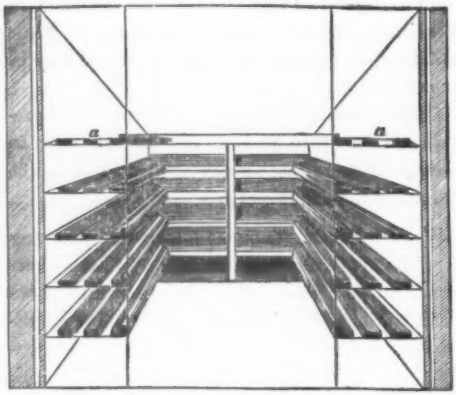
"Such are the cases necessary to fill the conditions we have indicated for the preservation of fruits. The fruit-room should be visited at least once in eight days, to remove the fruits which begin to decay, set apart those which are ripe, remove the decaying berries from the grapes, and renew the chloride of calcium."

In the *London Gardeners' Chronicle* Mr. Robert Thompson gives the following description and plans of the fruit-room of a gentleman near London, who has for several years exhibited pears in fine condition at a season when the same varieties are generally gone. It illustrates the leading principles to be observed in building a fruit-room; but it must be remembered that in our Northern States at least, greater precautions must be taken to prevent freezing. Thick walls with air spaces, or filled with some non-conducting material, are among the esentials in this regard.



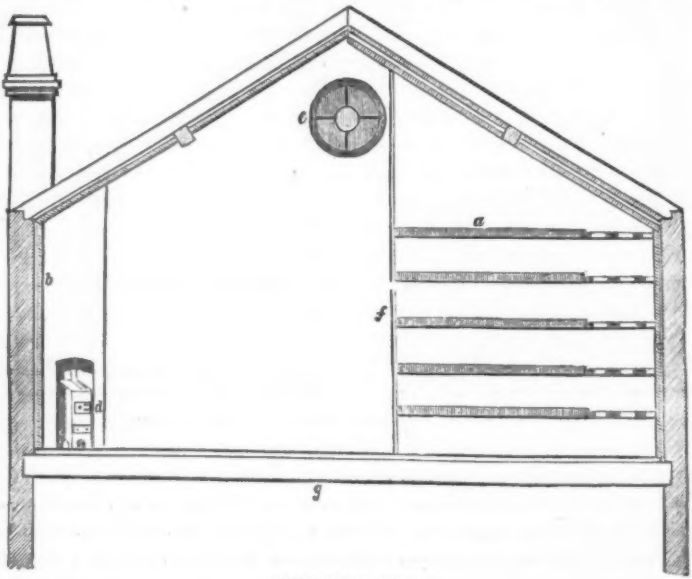
PLAN OF MR. MOORMAN'S FRUIT-ROOM.

"Description and Plans of Mr. Moorman's Fruit-Room.—The room was not originally constructed for a fruit-room; but by a little adaptation Mr. Moorman has succeeded in rendering it a most excellent one, as is proved by the prizes awarded for the productions exhibited from it,—not in any one year, but repeatedly, year after year. It is a partitioned-off portion of a loft which extends over a coach-house and stables, and is that part which is above the coach-house. It was originally fitted up for a harness-room, the walls, as is usual in such places, being lined with wood. The roof is slated. The range of building is detached, and faces the southwest.



INTERIOR VIEW.

"It will be observed that there is a cavity (*c*) between the boarding and walls. This, I believe, is an important circumstance, and so is the wooden lining, because air and wood are known to be slow conductors of heat. The ceiling on the north side is double, and the floor is wood above a ceiling. We may therefore conclude that a uniformity of temperature in the interior of the room is insured to a considerable extent. There is a small stove, (*d*,) but it is seldom used, and never with the view of warming the air of the room, unless the temperature is actually below freezing. The fruit is therefore kept cool. The swing-window (*e*) is occasionally a little opened;



LONGITUDINAL SECTION.

Explanation of the letters. — *a*, Shelves made with battens, 1½ inch wide and 1¼ inch apart. *b*, Close boarding around the sides of the room. *c*, Air space between the boards and the wall. The roof has also an air space on the north side, between the two plaster ceilings, as shown on the section. *d*, Stove. *e*, Circular window hung on pivots, and fitted with a roller-blind. *f*, Partitions of open work, similar to the shelves. *g*, Coach-house under fruit room.

but it is at all times covered with a roller-blind, so that the fruit is kept in the dark. A little fire in the stove, air being freely admitted by the window at the same time in a dry day, is useful for speedily removing any damp which may arise from the fruit. The shelves (*a a*) have a layer of clean-drawn straw laid across them; on this the fruits are placed singly.

"From a consideration of all the above details, it may be inferred that if a fruit-room be built over a place where there is a free circulation of air, its roof double ceiled, the walls lined with wood, a cavity being left between these two, it will possess the essential properties of the one under consideration.

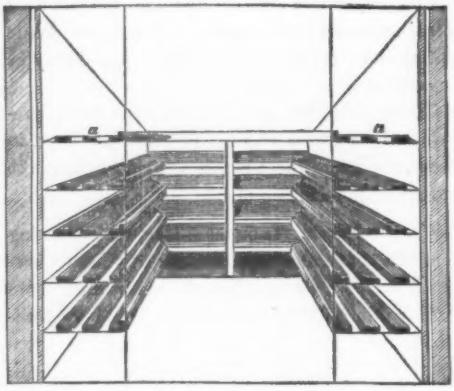
"The more important principles necessary to attend to, with regard to the long-keeping of fruit, are uniformity of temperature, coolness, and darkness. If the temperature is uniform, there can be little or no deposition of moisture on the surface of the fruit; but if the air of the room should be say ten degrees warmer than the fruit, then the relative coldness of the latter will cause a condensation of the moisture contained in the air in contact with the fruit, just as a cold glass becomes dewed over when brought into a warm atmosphere. If the air is indeed very dry, then a proportionately greater difference of temperature is necessary to produce the above effect; but in winter the hygrometer seldom requires to be cooled more than a few degrees before it indicates a deposition of moisture. Fruits with smooth, glossy skins, in close contact with the cold substance beneath them, are those most profusely covered with moisture from the above cause. In russeted varieties, their dry, rough coats serve as non-conductors of heat, and hence less moisture is deposited on them. When the air becomes colder than the fruit, a contrary action — that of evaporation — takes place, and the surface of the fruit becomes dry. But this wetting and drying must prove very injurious, while its cause — alternations of temperature — must likewise affect the specific gravity of the juices of the fruit. Mr. Moorman's fruit is not exposed to such vicissitudes; for when the weather becomes frosty, it is several days before the thermometer in his fruit-room is affected as much as one degree.

"It may be remarked that in giving air, a period of the day should be chosen when the thermometer outside indicates the same temperature as that in the room. No deposition of moisture can then take place in consequence.

"With regard to coolness, it is well known that this condition is favorable to the long-keeping of fruit; for we act on the contrary when we wish to render any variety fit for use before its usual time. The fruit-room in question must be cooler on an average than if it had been on the ground; for the latter, under a building particularly, is much warmer than the air in winter.

"Light accelerates the maturity and ultimate decay of fruit exposed to its influence. If the soundest specimens are picked and placed opposite a window, they soon become much inferior in appearance, compared with those from which the light is excluded, all other circumstances being the same. In Mr. Moorman's fruit-room the light is excluded by a blind, even when air is given.

"By such arrangements as those above detailed, Mr. Moorman keeps the *Marie Louise* in fine condition till after Christmas. He possesses a selection of the best



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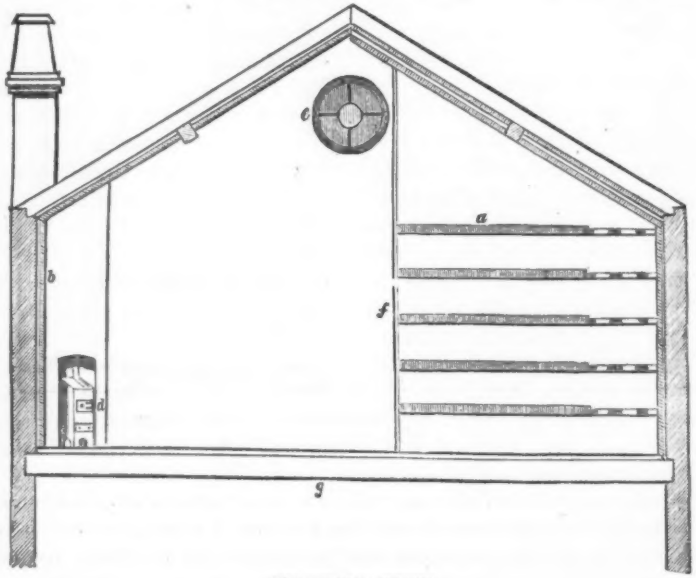

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varieties of pears, which he grows chiefly on espaliers, which are well managed by his gardener, Mr. TUCKER, in the Clapham-road. He had some remarkably handsome specimens of the *Winter Nelis* in his fruit-room in January, much larger than that excellent variety usually grows. We have also seen very large specimens of the *Marie Louise*, grown at his seat at Box Hill, in Sussex. The tree which produced them is trained against the gable end of a barn, about a quarter of a mile from the sea, and this tree is exposed to the strong sea-breezes from the southwest. It was planted in good soil, and a spring below it was discovered when digging the hole for the compost, previous to the tree being planted.

THE GOVERNOR WOOD CHERRY.*

DECIDEDLY the most successful attempt made at raising seedling fruits by any individual in this country is that of Dr. J. P. KIRTLAND, of Cleveland, Ohio, who has produced no less than twenty-eight varieties of excellent cherries. They were all briefly described by that gentleman himself in the March number of the current volume of the *Horticulturist*. Since that time a "cherry festival" has been held at Cleveland, and the merits of the cherries, examined *on the trees* as well as on the tables, freely and fully discussed and criticised by the most competent pomologists of the Western States; of the results we have already given some account. This instance of extraordinary success is encouraging in the highest degree, and can hardly fail to induce similar experiments on other fruits and in other parts of the country.

Throughout a large portion of this country, both in the north and west, the finer cherries are too tender for the climate, and this leaves a field open yet. If we could by hybridzation obtain varieties possessing the excellence of the *Bigarreau*, joined to the hardiness of the *May Duke*, what a gain it would be! We know of no reason why we cannot. Among all Dr. KIRTLAND'S cherries we have seen none that equals, in our opinion, in beauty of appearance and delicacy and richness of flavor the *Governor Wood*. We have had it in bearing some four or five seasons, and it has been uniformly fine: so it has proved in other places, as far as our knowledge extends. We said, the first year it bore, that it was one of the finest table fruits we ever saw; and to-day we consider it as having no superior. It will not be so popular in market as the *Black Tartarian*, *Yellow Spanish*, *Napoleon*, or some others, but every amateur will desire to have it in his collection. The fruit is above medium size, or rather large, round, of a beautiful amber color, becoming a clear cherry red when fully ripe; flesh tender, like *Downer's Late*, and others of that class, juicy, sweet, and fine flavored. The tree an erect, regular, handsome grower, hardy and very productive—the branches being literally covered with fruit, as though they were tied on; the fruit we think, too, is the least liable to rot, and hangs longest sound on the tree of any variety we know, ripening at the same time. Season, here, latter end of June and beginning of July; nearly same season as the *Yellow Spanish*—a few days earlier.

* See Frontispiece. The engraving is a little under the size of fine specimens.

WINDOW GARDENING AND PLANT CASES.*

"The Hopean apparatus is thus described in the *Gardener's Chronicle*:—'A flat dish of porcelain had water poured into it; in the water a vase of flowers was set; over the whole a bell-glass was placed, with its rim in the water. This was a Ward's case in principle, although different in its construction. The air that surrounded the flowers, being confined beneath the bell-glass, was constantly moist with the water that rose into it in the form of vapor. As fast as the water is condensed, it runs down the sides of the bell-glass back into the dish; and if means are taken to inclose the water on the outside of the bell-glass,' (which can easily be done by having the bell-glass as large as the porcelain dish,) 'so as to prevent its evaporating into the air of the sitting-room, the atmosphere around the flowers would remain continually damp. What is the explanation of this? Do the flowers feed on the viewless vapor that surrounds them? Perhaps they do; but the great cause of their preserving their freshness is to be sought in another fact. When flowers are brought into a sitting-room, they fade because of the dryness of the air. The air of a sitting-room is usually something drier than that of the garden, and always much more so than that of a good greenhouse or stove. Flowers, when gathered, are cut off from the supply of moisture collected for them by their roots, and their mutilated stems are far from having so great a power of sucking up fluids as the roots have. If, then, with diminished powers of feeding, they are exposed to augmented perspiration, as is the case in a dry sitting-room, it is evident that the balance of gain, on the one hand, by the roots, and of the loss, on the other hand, by their whole surface, can not be maintained. The result can only be their destruction. Now, to place them in a damp atmosphere is to restore this balance; because, if their power of sucking by these wounded ends is diminished, so is their power of perspiring, for a damp atmosphere will rob them of no water: hence they maintain their freshness.

"'The only difference between plants in a Ward's case and flowers in the little apparatus just described, consists in this, that the former is intended for plants to grow in for a considerable space of time, while the latter is merely for their preservation for a few days, and that the air which surrounds the flowers is always charged with the same quantity of vapor at all times in the dish and bell-glass, while in a Ward's case the quantity of vapor will vary with circumstances, and at the will of him who has the management of it.'

"This very excellent quotation comprises all that can be usefully said on the subject of preserving cut flowers in rooms, and ought to be carefully studied by every lady who takes pleasure in having flowers in her room. We have long seen expensive glass shades placed over artificial flowers, and over delicate specimens of natural history, with a view to keep the dust from them, while no such precaution was taken to preserve natural flowers from the same evil, much less to prolong their existence in a fresh and perfect state.

* Continued from the September number.

"It would be of little utility for us to attempt giving specimens of such apparatus; the description given shows the principle completely. We may, however, remark that porcelain dishes might be made with a shallow groove within their rim, into which the glass shade might be made to fit, both for the exclusion of air and also to prevent the evaporation from the water from mixing with the air in the room;—not, however, that the small quantity of aqueous matter discharged by evaporation from such dishes would at all affect the air of a large sitting-room; perhaps it would rather have a beneficial effect, especially in winter, when large fires are maintained, which, it is well known, rob the air of a room of its moisture, and render it unwholesome for the inmates.

"Closely connected with Wardian Cases is the subject of plant tables for rooms, certainly a department of drawing-room furniture hitherto much neglected. The following specimens may afford ideas for further improvement, should they not be sufficiently complete in themselves.

Fig. 12.

"Fig. 12 is a flower-basket of wirework painted green; or, still better, the basket-work part may be made of brass wire, and left of its natural color. It is mounted upon a mahogany or oak clawed pedestal set on castors. A shallow zinc tray is placed within, to prevent the water that may pass through the pots from falling on the carpet. This tray, like all others used for the same purpose, as well as in Wardian cases, should have a small waste-pipe attached to the lower part of its bottom, and regulated by a brass cock, so placed, and of such a size, as not to be seen from any part of the room. This is intended for withdrawing the water that may accumulate in them, and so preventing its overflowing, as it may not be convenient at all times to remove the whole of the plants out of the table. The plants are to be packed in moss, kept perfectly green and fresh on the surface.

"Figs. 13 and 14 are more adapted for cut flowers than for plants in pots. They are made water-tight within, with the usual provision for drawing it off every day, that fresh water may be supplied. The top is covered with a portable fine brass-wire grating, the meshes being about half an inch square, to support the flowers, and to keep them in an upright position. Fig. 15 is an example entirely composed of mahogany, rosewood, satin-wood, or oak, according to fancy. The interior of the box is lined with thin lead, zinc, or copper, and provided with a waste-pipe. The basket-work round the top, in this case, should be brass, rolling rather outwards at top, and only from four to six inches

Fig. 13.

Fig. 14.

inches in depth, as the framework of the table is presumed to be deep enough to hide the pots: the whole of the basketwork should appear above the surface of the moss. This table may be used for cut flowers of dahlias, pinks, or carnations, half of the box being filled with moss, and filled up with fine white sand, into which the flowers are to be stuck nearly to their calyx. If tastefully arranged with regard to the harmony of colors, such a table will have a pretty effect, and the flowers will last for several days, if not exposed too much to the action of the air. All stands for cut flowers should be provided with glass shades, to be put on at night when the company retires, and removed just before breakfast in the morning, to secure them from dust, which must necessarily arise in doing up the rooms in the mornings, and also to protect them from air. The moss and sand being saturated with water when put in, the flowers will remain much longer than if placed in water alone.

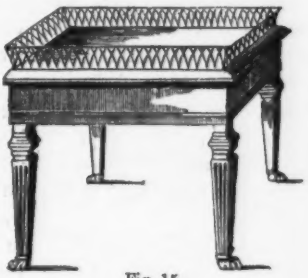


Fig. 15.

"Fig. 16 exhibits a very elegant flower-stand upon a principle different from those already noticed. It was the invention of Mr. Saul, of Lancaster—a name well known, from his many and excellent contributions to the horticultural periodicals, extending now over many years. It was published in the second volume of the *Magazine of Botany*, and described as follows: 'The very high state of perfection to which casting in iron has arrived is taken advantage of for ornamental purposes. The present flower-stand is worthy of notice, and will not be very expensive. There are four movable baskets, *a a a a*, which move round on the rod *b*, and may be placed any height and any figure that may please the possessor, to suit the situation in which it is to be placed. The rod *b* moves up and down in the pillar *c*, till the branch rests at the top of the pillar at *d*. The branch *e* is movable, and may be taken off the rod, so that the brackets may be slipped off at the top, leaving only one or two, according to the number of plants intended to be placed thereon. The stand is bronzed, which gives it an elegant appearance, either fit for a drawing-room or any other place. The bottom *f* is made of different kinds of ornaments, to suit the

Fig. 16.

Fig. 17.

taste of the purchaser. The pots *g g* are merely placed to show that they rest on the leaves fixed at the ends of the brackets.'

"Fig. 17 is another specimen of a flower-basket upon a stand, with basketwork of brass enclosing a shallow vessel for the reception of water. The form is elliptical, and, as an economical arrangement, the top may be removed, and replaced with the top of a circular or elliptical table.

"The amateur propagating-box is exemplified by the annexed diagram, fig. 18. They are much used in Denmark by those who have no regular greenhouse, pit, or frame, and are both ornamental and useful, and seem to attract the same attention the Wardian cases do in the drawing-room in this country. The case here represented is three feet long, fifteen inches wide, one foot high in front, and eighteen inches high at the back. The sides are formed of boards, and painted. The top is covered with glass, and the whole elevated to a convenient height upon a stand. The bottom is covered with drainage, over which is a stratum of moss, one of sand, and a third of mold. The cuttings are made and planted in the usual manner, for it is for the propagation of cuttings that these cases are intended. The whole is well watered and the glass shut down, and afterwards managed exactly as Wardian cases are with us. With us a species of cultivation of the already formed plant affords the gratification, but the Danish ladies take the subject up a step earlier, and produce the perfect plant from the cutting or slip — each in their way equally gratified with their success, and of course equally annoyed should failure ensue. The form of this kind of propagating-box may be varied, and elegant and ornamental forms may be indulged in."

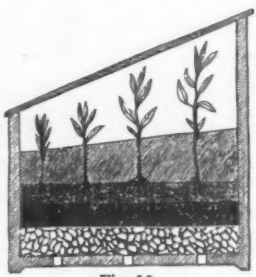


Fig. 18.

NEW AMERICAN PEARS.

The Hosenschenk Pear.—Messrs. Thorp, Smith, Hanchett, & Co., of Syracuse, were kind enough to send us specimens of this fruit, but they were received in our absence, and the drawing and description preserved for us were too imperfect to enable us to describe it fully and accurately. The specimens, too, were imperfect, having broken stalks, and the flavor was impaired by carriage. We are very favorably impressed with this pear; but from what we have learned of it from Mr. Chas. Downing, and others who have fruited it, we do not believe it will rank with our *very best* summer fruits. It is, however, well worthy of extensive trial.

We subjoin the communication of Messrs. Thorp, Smith, Hanchett, & Co., written by Mr. Fahnestock of that firm:

"The *Hosenschenk Pear* is known by many names; in Pennsylvania, such as *Butter Pear*, *Smokehouse*, *Schenk's Pear*, *Watermelon*, &c. *Schenk's August* is a different pear,

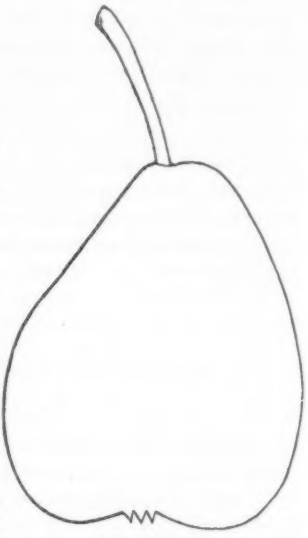
although by some called the same; it is a much more thrifty grower, with much darker wood than the *Hosenschenk*. Having seen a very flattering description of this pear by Dr. BRINCKLE, of Philadelphia, and having had several communications in relation to the same from two of our Pennsylvania friends, I brought the character of the pear before our firm, and we decided last season to propagate it largely. We now have a very fine stock. The fruit you saw was sent us from the bearing tree in Pennsylvania, from which our grafts and buds came, and we esteem it not only by far the *largest pear* of its season, but the *best*. It is as good as the best *Onondaga* we have ever tasted, and, in our opinion, fully equal to the *Virgalieu*, of which it is supposed to be a seedling. Size large, very juicy, melting, and refreshing, and will be a decided favorite, as soon as made known to the community. How so large and fine a pear, ripening in August, could be confined to so limited an area, we are unable to account for. The original tree is from forty-five to fifty years old, on the farm of Mr. JOHN SCHENK, of Weaver township, Penn., who raised three trees from seeds found in one pit, all of which came into bearing: one proving worthless, one of second rate fruit, and the other, the fruit we sent you, called *Hosenschenk Pear*, which is still thrifty, bearing annually large crops, and still growing near the smokehouse, from which it was long known as the *Smokehouse Pear*. Mr. SCHENK is represented as a man of singular character, much devoted to raising new trees and plants, and neglected his farming operations in order to attend to the 'smelling of water.' He went far and near for those who desired his services, and was generally very successful in finding under-streams. He wore wide 'trowsers,' and used to say that during his lifetime these same wide-legged pantaloons had been three times in fashion. Hence the name '*Hosen*'-schenk, meaning '*breeches*'-schenk. We are indebted to our friend Mr. J. B. GARBER for the above history.

We have sent to Messrs. HOVEY & Co., Hon. M. P. WILDER, LUTHER TUCKER, Esq., Dr. WENDELL, and the Cincinnati Horticultural Society two specimens each of the same lot of pears sent you, and at the same time. These pears were picked green and hard, and packed in buckwheat chaff, and forwarded by express from Pennsylvania to us. When they arrived, unfortunately, the chaff imparted to them quite a musty taste, and they were by no means a true test. Our friend also apologies for the size being small, as the tree had a very heavy crop on it. I give you short extracts below from some of those to whom we have sent specimens; and as we have characterized it not only the largest but best pear ripening in the month of August, and nearly equal to our best in flavor, you can at once judge how our views compare with theirs.

"We make the following extract from a letter from Messrs. HOVEY & Co., of Boston: 'Dr. BRINCKLE had given us some information about the *Hosenschenk*, and we supposed it might be a good pear, but we are happy now to have good evidence that it is decidedly an acquisition to our early kinds. Those you have sent, undoubtedly, are not fair samples, but they show it has a *very melting* and *juicy* flesh, and only lacking more flavor to give it a rank among the best pears we possess. We have made a cut of it, and shall be pleased to learn its full history, &c.'

"The following is an extract from the letter of Hon. M. P. WILDER: 'I received with pleasure the specimens of the *Hosenschenk Pear*. I have heard something of this fruit, but was not aware of its being *so early*, or so *handsome* and *large*. The flesh is very *tender*, *juicy*, and *melting;* the flavor mild and pleasant; and were it a little higher and more specific, this variety would, without detriment, compare with our favorite *Bartlett*. From the specimens sent, I should judge that it would be a valuable early market pear. Please send me five of the best trees you can spare.'

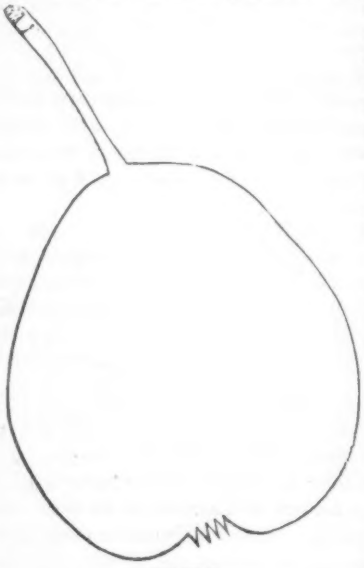
"We have a letter from Dr. WARDER, of Cincinnati, in which he says that Dr. MOSHER, President of their society, spoke to him in high terms of this pear. The Doctor was absent from Cincinnati, but he will no doubt give the opinion of the committee."



PULSIFER PEAR.

THE PULSIFER PEAR.—We are indebted to SMILEY SHEPHERD, Esq., of Hennepin, Ill., for specimens of this native Illinois variety. After being packed for about ten days, they reached us on the 10th of August in tolerable condition. We are inclined to class this pear in quality and size with the *Bloodgood;* and as it is described as being very hardy and productive, it will undoubtedly prove valuable, especially in the West. Mr. SHEPHERD gave us the following account and description of this fruit in 1850, published at that time in the *Genesee Farmer:*

"In the spring of 1843, Dr. JOHN PULSIFER, of Hennepin, planted in his garden a pear seed, (kind unknown,) which sprung up, grew, and the present season bore a crop of fruit of great merit in different respects. Growth of tree—upright and vigorous. Shoots—dark olive. Buds—round, full, and prominent. Leaves—dark green, ovate, reflexed. Size of fruit—hardly medium. Shape—pyriform. Stem—short and curved. Calyx—small, open, set in a shallow depression. Skin—dull golden yellow, covered with an open network of slight russet. Flesh—white, melting, juicy, sweet, and delicious—much like, but superior to, *Louise Bonne de Jersey*. The time of ripening, the present backward season, was the first half of Aug."



OTT PEAR.

Mr. SHEPHERD says now: "The experience of two years more has but confirmed us in this opinion of its superior merit—first, for early and prolific bearing; second, for high and excellent flavor; and third, for hardiness and vigor of growth." We commend this pear for trial in other sections of the country.

THE OTT PEAR.—This is a native Pennsylvania pear, originated on the grounds of Mr. SAMUEL OTT, of Montgomery county, Pa., said to be a seedling of the *Seckel*. It

was introduced to notice a few years ago by Dr. BRINCKLE. We have fruited it this season, having it ripe on the last of August. It proves to be a very fair and excellent fruit, ranking with the best summer pears. Size—rather small, roundish-obovate, regular. Skin—greenish yellow, marked with a thin russet and with a marbled red cheek generally. Calyx—rather small, in a narrow, shallow basin. Stalk—one and a half inches long, rather slender, and inserted in a flattened end. Flesh—white, rather coarse, melting, rich, and perfumed, with somewhat of the flavor of the *Seckel*. Our specimens were from a double worked tree. The tree is a fair grower, and, judging from two or three years' trial, succeeds well on the quince. This will, we think, be a generally esteemed amateurs' pear, but will be found too small for our markets generally.

THE ROSY HISPA AND THE DROP-WORM.

BY PROF. T. W. HARRIS, CAMBRIDGE, MASS.

[IN the latter part of the month of August we were traveling through Jefferson county, N. Y., and observed through the whole country that the Basswood trees, which are very abundant in that part of the country, looked as brown and dry as though some terrible blight had struck them all dead. On examination we found this appearance was owing to the leaves being all devoured, leaving but the skeleton of fibres; not a leaf had escaped throughout the immense forests which we passed on a journey of some thirty miles or more. The insects had mostly disappeared, but after a long and eager search we found one tree, the leaves of which, though reduced to skeletons, were yet thickly covered with the insects. We immediately sent specimens to Prof. HARRIS, requesting such information as he possessed respecting them, and he has very kindly complied. Insects that appear in such swarms, and commit such havoc, should be known. The other insect, the "Drop-worm," described by Prof. HARRIS below, was sent us from Tennessee by Mr. ROBERT MESTON, whose note we publish among correspondence.—ED.]

Among the leaf-beetles that are injurious to vegetation are those belonging to the tribe called HISPADÆ. Such are the little insects which you lately sent to me, and which you found to have destroyed the foliage of the Basswood, or American Linden (*Tilia Americana*), in Jefferson county, N. Y. A variety of the same insect attacks the leaves of the White Oak, and occasionally those of the Apple tree, also. These leaf-beetles are described in the second edition of my Treatise, pp. 105 to 107; and a more full account of them, with figures of the grub and chrysalis, will be found in the first volume of the *Boston Journal of Natural History*, pp. 141 to 151.

The day before your letter came to hand, I found one of these beetles, which had just emerged from a leaf of the Linden, and I saw several other leaves on the same tree that had been eaten by insects of this kind. In the summer of 1851 the White Oaks in some parts of Long Island suffered very much from their attacks; and, with

this communication, you will receive one of the leaves, showing in what way and to what extent they were affected.*

Your insect is the Rosy Hispa, or *Hispa roseæ*, of WEBER, otherwise called *Hispa quadrata* by FABRICIUS, and *Hispa marginata* by SAY. The accompanying rude and very magnified sketch will give an idea of the form of this pretty leaf-beetle, and the line at the side of it indicates its natural size, which rarely exceeds one-fifth of an inch in length. Its body is light red above, ornamented with short blood-red lines, and is mostly blackish beneath. The antennæ are black, and the legs are reddish-yellow. The thorax is rough with small indentations, or punctures, as they are called; the wing-covers are notched around the outer edges, have raised ribs upon them, and deep punctures in the intervals. The Rosy Hispa may be found abundantly in May and June on the leaves of the Shad-bush, or *Amelanchier Canadensis*, and on other shrubs of the same family, the leaves of which it devours. The variety which inhabits the Oak differs in being of a reddish-yellow color, ornamented with blackish-red lines. This difference may be occasioned by its food, or by other causes of an accidental nature.

The female Hispa deposits her eggs, for the most part, singly, on the upper surface of the leaves. These eggs are glued fast to the leaves, and are covered with a rough, blackish crust. The grubs, hatched from the eggs, immediately penetrate into the pulpy substance of the leaf, which they devour, leaving the cuticle, or skin of the leaf, both above and beneath, untouched. The part of the leaf thus, as it were, undermined, becomes dry and brown, and through the semi-transparent cuticle, when held between the eye and the light, the grub may be seen in its burrow. The grub comes to its growth toward the end of July, and then measures from one-fifth to one-quarter of an inch in length. It is somewhat flattened, and tapers toward the hinder extremity. Its color is yellowish-white, except the head, the first segment, and the tail, which are blackish. It has six legs, a pair beneath the first, second, and third segments; and on each of the remaining segments, both above and beneath, except the last, there is a transverse horny spot, which is rough, like a rasp. The sides of these segments, also, are prominent, and are surmounted each with a little brownish tubercle, or wart. Early in August the grub is transformed to a chrysalis within its retreat. The chrysalis, which is whitish at first, finally becomes brown. Like the grub, the sides of its body are prominent, and there are transverse rasps on the back and belly. In about one week afterward the insect casts off its pupa skin, and comes out a fully formed beetle, which has only to force a passage through the thin cuticle of the leaf in order to escape into the open air. The insect, probably, passes the winter in the beetle form in some place of concealment. Such is briefly a history of the transformations of this little *Hispa*.

The caterpillars, which, together with their cocoons, you sent to me, with the information that they were very destructive to the Arbor Vitæ, Cedar, and other resinous

* Quite similar to the manner in which the Basswood leaves are eaten.—ED.

plants in Tennessee, are the drop-worms, or basket-worms, referred to on page 319 of my Treatise. To their destructive powers I can testify from my own sorrowful experience; a fine Arbor Vitæ tree, on which I had placed, in May, 1850, some of the cocoons received during the previous autumn from Philadelphia, not having yet recovered from the effects of the ravages of the insects, though the latter were limited to one summer. These drop-worms are exceedingly curious and interesting in all their habits and transformations, the history of which might form the subject of a long memoir. But neither time not space will permit me to offer any more than a very short sketch of their history, which is drawn up from notes written in the years 1849 and 1850, when I had a colony of the living insects in keeping.

These insects inhabit the Swamp Cedar (*Cupressus Thyoides*), Arbor Vitæ (*Thuya occidentalis*), Larch (*Larix Americana*), and Hemlock (*Abies Canadensis*), with other resinous trees; but occasionally they attack the Linden, the Maple, and even fruit trees. They are common in the Middle and Southern States, and probably most of the Western States also; but hitherto they have not been discovered in New England. They belong to Mr. GUILDING's American genus *Oiketicus;* and, as they do not seem to have received a scientific name, I shall venture to give them that of *Oiketicus coniferarum*, from their preference to trees of the cone-bearing tribe. The species is probably the same as the one noticed by my lamented friend, the late Mr. EDWARD DOUBLEDAY, in *Newman's Entomologist*, No. 7, pp 97–98; but the male insect does not agree with the figure, copied from one of ABBOT's drawings in the same work, nor does it correspond any better to GUILDING's figure of *Oiketicus McCayi*, though about the same size.

As soon as the drop-worms are hatched, they make and conceal themselves in little silken cases, open at each end, and covered externally with bits of leaves, twigs, &c. These cases are enlarged, as the insect increases in size, by the addition of more materials within and without, and finally become oblong oval pods, with long somewhat cylindrical extremities. The inhabitant carries its house about on its back, as a snail does its shell, when it is moving and feeding; fastens it by a few threads when it wishes to rest; or lets it drop by a thread when it wishes to descend from one branch to another: hence, in Philadelphia, where these insects are abundant, they have acquired the name of drop-worms. These worms attain their full size by the middle of September, and then fasten the upper end of their cases to a twig of the tree by a strong silken band. The weight of the case, with its elasticity, closes the upper orifice, from which the worm has been accustomed to protrude its head and fore legs when feeding; the insect then turns round within its pod, so as to direct its head toward the lower cylindrical orifice, and thus awaits its change to a chrysalis. The worms which produce the female insects are much larger than those of the males, and there is the same difference in the size of their pods and of their chrysalids. Female worms attain the length of one inch and a half, those of the males only about one inch. The head and fore part of the body are white, spotted with black; the rest of the body is livid or blackish. The first three segments are each provided with a pair of stout jointed claw-like legs. The tail and four intermediate segments are

furnished with a pair of very short holders, or prop-legs. The male chrysalis is a little more than six-tenths of an inch long, of a dark brown color, and exhibits the sheaths of the wings, and limbs of the future moth, which escapes from it toward the end of September or early in October, immediately before which the chrysalis forces itself half way out of the lower end of its case. The female chrysalis is nine-tenths of an inch long, or more, of the same color as that of the males, but without any vestige of wing-sheaths or limbs. There is a prominent ridge over the fore part of the body. When the included female is matured, the skin of the chrysalis splits at the ridge, so as to form an opening in the shape of the letter T, and through this opening the approaches of the male moth are made, the female remaining all the while not only enclosed in her pod, but also encased in the skin of the chrysalis. In this skin, also, she lays her numerous eggs, gradually withdrawing her emaciated body as she fills the pupa skin, and finally closing the upper part of the skin with a thick layer of fawn-colored down, stripped from her own body. Having finished her labors, she crawls out of the pod, entirely shriveled up, drops off and dies, or more rarely perishes at the mouth of her pod. She is found to be entirely destitute of wings, and her legs are extremely minute, and resemble little tubercles. The male moth, on the contrary, is fully provided with wings and limbs. Its body, which measures rather more than half an inch in length, is covered with long blackish-brown down. Its wings are semi-transparent, and are very scantily clothed with blackish scales, which are thickest on the margins and veins. The white spot, represented by Mr. ABBOT on the fore wings of his figure, is entirely wanting in all the males that I have seen. The antennæ are curved at the tips, and are doubly feathered from the base to beyond the middle. The tongue is not visible. The wings expand one inch and one-tenth, or more. The male moths are very impatient of confinement, and keep in constant motion, which renders it very difficult to obtain perfect or unrubbed specimens. The eggs remain secure in the shell or skin of the female chrysalis, enclosed in the suspended pods, through the winter, and are hatched in the spring when the trees are well clothed with leaves, upon which the little worms, having left the pods, immediately disappear, and each one begins to cover its tender body with a silken and leafy case. The figures represent one of the pods or cocoons, suspended by a twig, when the insect has prepared for its final transformation; also a male moth, both of the natural size.

Foreign Notices.

PYRAMIDAL CHINA ASTERS.—Among all the beautiful annuals cultivated at the present time, we know of none more worthy of attention than these charming pyramidal Asters, recently introduced by the French florists. M. TRUFFANT, of Versailles, who has brought their culture to a high state of perfection, gives a very full account of his management in the *Revue Horticole* for July, 1853. The *Gardeners' Chronicle* condenses a part of it as follows, leaving out some very instructive remarks on the saving of seed, with a view to the improvement of both habit of the plant and form and colors of flowers.

He sows the seeds in the open ground, and in pots or pans under clotches (bell-glasses), or in frames. *The sowing in the open ground* is made in good rich well-worked soil, in the last fortnight of March. The seeds are very thinly covered with fine decayed leaf-mold, and slightly watered, then covered with bell-glasses or frames. These are covered with straw mats when the nights are cold, and slightly shaded from the sun's rays when the days are bright.

If the weather prove favorable, the plants will appear in about ten days. Air is then gradually admitted, and more fully as the plants acquire strength, in order that they may become robust. It is necessary to guard against the attacks of insects; those most to be dreaded are the wood-lice and black spiders.

The plants from this sowing will commence flowering in the beginning of August, and will continue till September; so that in order to prolong the flowering, it will be necessary to make several successive sowings at intervals of ten or twelve days; but those sown in the end of March produce the most vigorous plants and the finest flowers.

Sown in pots or earthenware pans.—These, when the seeds are sown, are covered with a pane of glass, whitened on the upper side with chalk and water. This glass has the effect of breaking the rays of the sun, and of preserving the seeds from mice and other animals, or insects, and it prevents the soil from becoming too dry. The pots are then placed in a house with a temperature between 60° and 70°, and as near the glass as possible, or, better, in a warm frame. A little air is admitted when the plants come up by tilting the square of glass, from which the chalk should be previously washed off, in order that the young plants may have as much light as possibly can be given them. The pane of glass is removed when the young stems grow up to it.

Pricking out in the open air.—The plants from the sowing made under bell-glasses or in frames, between the 15th of March and the 1st of April, ought to be pricked out between the 20th of April and the 1st of May, at eight inches apart each way, in good light soil, covered with half an inch of fine leaf-mold. The plants should be carefully watered, but not at night, for the nights at this season of the year are frequently cold.

Pricking out under bell-glasses or frames.—The plants from sowings made in pots or pans being more susceptible of drawing up than those raised in the open ground, ought to be pricked out as young as possible, or as soon as they have developed one or two leaves. Fifteen to eighteen are pricked out under one hand-glass, and from eighty to a hundred under a frame four feet four inches square. The plants are slightly shaded from strong sun for a few days; air is gradually admitted, and when they have taken fresh hold, the glass is taken off at all times when the weather permits, for it is to be remarked that it is not employed for forcing the plants, but merely to protect them from atmospheric vicissitudes.

Final planting.—Between the 1st and 15th of June, taking advantage of cloudy weather, the plants pricked out are taken up with balls, and planted from fifteen to eighteen inches every

way apart, in soil well worked and manured with rotten dung. Basins are formed round each plant, and water is supplied several times a day when the weather is hot and dry. Twelve or fifteen days after planting the ground is hoed, or otherwise stirred between the plants; yellow leaves are picked off; the basins are again formed, and the surface of the soil is slightly mulched. Thus treated, the plants will become perfectly fresh-rooted by the first week in July. A stick is then put to each, without which it is impossible that the stems could support fifty or a hundred large well-expanded flowers, which will be produced on every plant.

As the proper arrangement of flowers in a garden is very important, and as a mixture of tall and dwarf varieties of different colors has a confused appearance, the seeds of the varieties of pyramidal China Asters should be gathered separately; and by marking, and sowing in regular order accordingly, the planting can be performed early, as above directed, without waiting too late to see the colors. To preserve the beauty of the flowers, it is advisable to shade them during the hot weather in August, the shading being removed at night; but in September and October the plants are fully exposed to the light during the day, and the thin canvas is then employed for protection from the cold at night.

Roses for Winter-Blooming.—A selection for this purpose should be made from the Tea and Bourbon families, on their own roots or budded very low. Presuming the plants brought from the nursery are in the small pots they are generally grown in for sale, they should at once be placed into those a size larger, carefully and freely watered, during this and next month, cutting off all the flower-buds they may show before September. About the middle of the latter month shorten the strongest shoots, and thin out the slender ones, turn the plants out of the pots, depriving them of some of the soil, and repot in those a good size larger, using a compost of turfy loam, sand, and manure in about equal proportions; they also like a little leaf mold; put several pieces of broken crock in the bottom of the pot, then a portion of soil; place the plant so that its surface roots shall just be covered, and then filling with the soil; put them in a situation partially shaded—water sparingly, till they begin to grow—then expose them fully to the sun, and water freely every day. There they may remain till the middle or end of October, when they should be removed to a pit to prepare them for flowering. Previous to their removal, the pots should be washed, and the plants neatly tied up. Where charcoal can be had, it will be found of great utility in the pot-culture of Roses, broken to the size of nuts, and about one-fifth mixed with the soil; the roots delight to ramble through it, and the foliage becomes of a richer and darker green; the surface of the soil must have frequent stirrings. The plants must be carefully examined, and whenever infested by the green-fly, the latter should be destroyed by tobacco smoke. Roses in pots are wonderfully benefited by a watering of manure-water now and then. This water is very easily prepared. Let droppings from the stable or cow-house be put into a large tub or barrel, with water kept over them for a week or two, occasionally stirring it up; the water may then be poured or drawn off for use. Guano water also makes a good manure. A quarter of a pound of guano in three gallons of water, frequently stirred before using, will be found very nourishing; indeed, one pound to sixteen gallons will be strong enough to use by the inexperienced, for if used much stronger than I have stated it would injure plants in pots. In the open ground any of these liquids may be used stronger and rather more frequently.—*J. H., in Gardeners' Chronicle, London, July* 16.

The *Lapageria rosea*, exhibited by W. J. Myers, Esq., at Chiswick, on Saturday last, has been grown in the plant-stove, where for the last three years it has never failed to flower beautifully; and when fifteen or sixteen blooms are in perfection at one time (as we have had it) the effect is very striking. One planted out in the border of a Camellia-house has not grown any—in fact, it has grown small by degrees and "beautifully less." Another planted in the border of the plant-stove last year has made a shoot twenty feet long, and is now in flower, trained up the rafter. We find that it grows best in pure leaf-mold, with plenty of pieces of wood in a state of decay mixed with the soil, and the plant kept well up in the pot or border in which it is planted. —*J. Selkirk, in London Gardeners' Chronicle, July* 16.

CULTURE OF THE CHINESE PRIMROSE.—I generally sow my seeds about this time, or a little earlier, in shallow pans, in light sandy soil, without any manure. They are sown thinly and pressed down on the surface, so as just to be covered with the soil. After a gentle watering, the pans containing the seed are removed to a hot-bed, where they remain until the young plants are about an inch in height. At this stage, they are pricked out into the same sort of pans, an inch apart, adding this time one-third leaf-mold to the soil. The plants are put into the hot-bed again until they have attained the height of two inches, when they are taken out of the pans, and shifted into 5-inch pots that have been well drained. The compost for this and their final shift consists of equal quantities of cow-dung two years old, leaf-mold, peat earth, and sandy soil. After potting, the plants are removed into a cold frame, with an eastern aspect. The lights are kept close for a few days, and the plants are shaded from the mid-day sun until they commence growing. Air is then admitted, gradually at first, but as soon as I perceive the plants to be fairly in a pushing state, I ventilate freely. The sashes are, however, always put on when it rains, for nothing is so injurious to Primulas as water overhead, at any stage of their growth. As they begin to fill their pots with roots, I give them liquid manure once a week, made from pigeon's dung. I permit the first flower stem to rise, but only for the purpose of judging of the merits of the flower. As soon as that is decided, the good flowers are picked out, and when the pots are filled with roots the plants are finally shifted into 8 or 12-inch pots, and treated in precisely the same way as at the former shifting, and with the same situation and aspect. They remain in the cold frame until the middle of October. After that they are brought into their winter quarters to flower in the green-house. As soon as the plants have stopped growing, I withhold the dung-water, as a continuance of it would be likely to destroy them in the winter months.—*J. H., in London Gardeners' Chronicle, August* 6.

STANDARD ROSE TREES.—I offer to the lovers of standard Roses a little plan of my own; it has succeeded admirably. An artificial prop to standard Roses is unsightly, and is both exposed to decay in the run of time, and to disasters from the raging of the wintry blast. In order to do without this prop, plant three standard Roses, (the longer the stem, the better,) in an equilateral triangle. If on a slope, one leg must be longer than the other two. They may be from eight to fourteen inches apart. Bring the stems together at the top, and bore a hole through each of them, a little below where they have been budded; then through these holes thread a copper wire, such as is used for soda-water bottles, and bring the heads of the three plants quite close together, making the ends of the wire fast. This is all. You have here a group so firm and strong, that it can never break down, or ever require an artificial support. I made four groups last autumn. They are now in fine blow, and are much admired.—*Charles Waterton, in London Gardeners' Chronicle.*

THE NIMROD STRAWBERRY.—We have received samples of this from Mr. SANDERS, the intelligent gardener at Tedworth, with a request that we would state our opinion of it. So far as we can judge of it, after having been packed in a post-office bag for several hours, we should say it is superior to the *British Queen;* it is large, oblong, or rather conical, with the same color as that variety, but sweeter and richer. It is said by Mr. SANDERS to be an excellent bearer, and to force well; in addition to which it is reported to be much hardier than the *British Queen*, nearly all of which perished last winter round Tedworth, while this *Nimrod* suffered in no degree whatever. —*London Gardeners' Chronicle.*

THE LATE PROFESSOR ADRIEN DE JUSSIEU.—Advices from Paris mention the decease of this distinguished botanist, upon whom the mantle of his great ancestors may be said to have fallen. Among the most conscientious and exact of systematical writers he also ranked high as a physiologist, as his well known elementary work has shown the world. For many years his health had been delicate, and of late had been deplorable. By his decease a vacancy occurs in the President's chair of the French Institute, in that of Professor of Rural Botany in the *Jardin des Plantes* (which, it is said, will not be filled up), and among the twenty foreign members of the Horticultural Society of London.—*J. L., in London Gardeners' Chronicle.*

Horticultural Exhibition at Chiswick, July 9.—We take the following extracts from the *Gardeners' Chronicle:*

Roses (cut) were shown in abundance, and maintaining as they did their freshness and fragrance well, they formed, as they generally do in July, a highly attractive feature of the show. Collections of fifty varieties were produced by Messrs. Lane, Paul, Francis, Clarke, and Wilkinson, and of twenty-five varieties by Messrs. Terry, Evans, Rowland, Busby, Sage, Munro, Bucktrout, and Gair. Among the different exhibitions we remarked excellent blooms of *Provins* or *Cabbage:* Madame Henrietta, large rosy pink; Cristata, bright rose. *Gallica:* Bizarre Marbré, mottled crimson; Boule de Nanteuil, reddish crimson; Kean, brilliant carmine; grandissima, bright crimson; Latitie, mottled crimson; Shakspeare, shaded deep crimson; Triomphe de Jaussens, bright crimson. *Alba:* Duc de Luxembourg, white, with a blush center. *Hybrid China:* Brennus, bright carmine; General Jacquimot, large shaded lake; Lady Stuart, blush. *Hybrid Bourbon:* Chénédolé, dark crimson; Comtesse Molé, pink; Comtesse de Lacepède, blush; Coupe de Hébé, pink; Great Western, red; Paul Perras, pink; Paul Ricaut, deep carmine. *Damask:* Isméne, white; Madame Zoutman, creamy white. *Hybrid Perpetual:* Amandine, pink; Baronne Hallez, fine crimson; Baronne Prevost, very large pink; Dr. Marx, rosy carmine; Caroline de Sausal, beautiful blush; Clementine Seringe, large shaded blush; Cornet, bright pink; Duchess of Sutherland, beautiful blush; Earl Talbot, deep rosy pink; Géant des Batailles; General Negrier, blush; Jacques Lafitte, pale carmine; Comte de Paris, pale crimson; Madame Trudeaux, beautiful carmine; Miss Pepin, large delicate pink; Queen, rose; Robin Hood, rosy pink; Soleil d' Austerliz, carmine; William Jesse, crimson, tinged with lilac; Comte Robrinsky, bright crimson. *Bourbon:* Souvenir de la Malmaison, creamy white, with a blush center; Acidalie, French white; Bouquet de Flore, rose; Souchet, deep crimson; Dupetit Thouars, ditto; Leveson Gower, carmine; Paul Joseph, purplish crimson. *Tea:* Devoniensis, creamy white; Niphetos, pale lemon; Bougère, rose; Elise Sauvage, yellow; Saffranot, fawn. *Noisette:* Lamarque, pale lemon; Aimée Vibert; and Solfaterre, sulphur.

Messrs. Lane showed boxfuls of Géant des Batailles and Paul Ricaut, both in beautiful condition, more especially the latter, which is one of the best Roses we have; Messrs. Paul had a seedling Moss which is distinct and promises to be an acquisition.

New Plants.—The most important of these was the beautiful Ceratostema longiflorum, from Messrs. Veitch. The same nurserymen also sent Philesia buxifolia and a pretty hybrid Veronica called variegata. It was in the way of V. Andersoni, but the flower-spikes were tipped with pink instead of violet. Messrs. Lee sent Begonia Prestoniensis; Mr. Selkirk, of Porters, near Barnet, furnished a large specimen of the handsome Lapageria rosea, producing some dozen flowers; and Messrs. Henderson sent Gaylussacia pulchra, a promising plant from their nursery in Wellington Road, along with a variegated Ananassa, Hoya Sieboldi, and one or two other plants; Mr. Taylor showed the common Arum Dracunculus in this class, and Mr. Green an Ixora, called neriifolia.

Varnish for Iron-work.—Locksmiths and others, says the *Home Companion*, working at the forge are accustomed to blacken the articles intended for railroads by making them red-hot, and burning on them some linseed oil. This plan, which is practised to improve the appearance of the articles and to protect them from rusting, is not economical nor always successful: it fails when the combustion of the oil has been too great. By the following process a varnish is made without the above disadvantages, which gives to the articles a better appearance: Dissolve, in about two pounds of tar-oil, something more than half a pound of asphaltum, and a like quantity of pounded resin; the mixing is performed hot in an iron kettle, care being taken to prevent any contact with the flame. When cold the varnish is poured into a vessel and kept for use. These varnishes are for out-door wood and iron-work, not for japanning, leather, or cloth. Oil varnishes are used for patent leather, and copal for japanning metal.—*Builder, in London Gardeners' Chronicle.*

Editor's Table.

OCTOBER is one of the most active months in the year with the gardener, orchardist, and nurseryman. A multitude of labors demand simultaneous attention, and it requires the most untiring energy and industry on the part of every one who has any considerable charge on his hands to see that every thing be done at the proper time and in the proper manner. Fortunately, in this country, our October weather is delightful—dry, cool, and bright, generally, and therefore eminently favorable for the rapid and proper execution of all out-door work.

Transplanting of all hardy trees, shrubs, and plants usually begins here in the north about the first of October; and, as we go further south, it must be deferred later. We are greatly in favor of early planting, when it is practicable; it is by no means necessary to wait until the leaves have fallen. If growth has fairly ceased, and the wood has become firm, trees may be removed; the leaves must be taken off to prevent shriveling, and the roots must be carefully guarded against exposure until they be again placed in the ground. Autumn planted trees should by all means be secured against the winds, either by staking or banking up; and they should be well mulched besides. From this time until the final freezing up of the ground, the laying out and improvement of new places should be carried forward vigorously, as the weather and the condition of the ground are both more favorable than during summer or spring.

Neglected orchards should now be renovated by manuring and plowing, or spading about the roots. This should never be deferred till spring, because during the winter and spring the sod decays, and the manure dissolves, and abundant food is thus prepared for the trees next season.

The *gathering and storing of fruit* must be carefully attended to by all who place a proper estimate on the products of their orchards and fruit gardens. We have given elsewhere an article that furnishes many useful hints on this subject; it is worthy of an attentive perusal.

Kitchen and garden crops for winter and spring use require nice management to keep them in a proper condition. Such as are taken up and placed in the root-cellar should be handled when dry, and the cellar should be clean and sweet, and perfectly free from moisture both above and below; it should also be kept cool as possible, but not admit frost.

Such of the bedding-plants as Salvias, Scarlet Geraniums, Fuchsias, Heliotropes, Cupheas, Bouvardias, Plumbagos, Abutilons, &c., as it is desired to save for another season, should be carefully lifted early, and either potted or planted closely in boxes, and placed in a cool green-house, or in some place where they will have light and not freeze. A corner of a dry cellar beside a window will answer in case of necessity, but decaying leaves must be frequently removed. Many of these plants, and some others we have not mentioned, such the *Habrothamas*, if taken up carefully in good season, may add materially to the beauty of the green-house through November. Many of the late flowering annuals are useful, too, in this way. *Chrysanthemums* from now till Christmas will be among the chief ornaments of the green-house; they require plenty of light—all that can be given them; plenty of water, and an occasional dose of liquid manure.

A great error in the management of most green-houses is, crowding the plants too closely, so that they grow up tall and lean, losing all their lower branches and leaves. Far better to throw away all surplus stock, and give ample room to what is reserved. One good healthy, well-grown plant is really worth *twenty* poor ones that every one feels ashamed of. All houses, and frames, and pits should be well ventilated in fair weather, and decaying wood or leaves removed promptly. Hardy *bulbous roots* should be planted immediately; yet it can be done any time before the ground freezes. There are certain things that vegetate early in spring, and should therefore always, if possible, be planted in the fall—such as gooseberries, currants, rhubarb, and all hardy spring-flowering shrubs, and hardy herbaceous plants. A good bloom next spring may be secured by planting now, but will be lost if the planting be deferred till spring.

NOTES OF TRAVEL.—*Greenwood Cemetery.*—This is without exception the most charming place of the kind we have ever visited, either at home or abroad; and this, too, notwithstanding its newness. The ground, naturally, is as beautiful and appropriate as it well could be, a fine undulating and richly varried surface, without being so abruptly broken in any part as to be unfit for occupation or difficult of access—commanding extensive views of New York and its environs, with the bay, and the ocean, stretching far away into the blue distance. What a glorious sight! The improvement, too, is so far well done. The walks thread the ground gracefully through the courses which Nature has pointed out for them, and they are substantially and thoroughly made, with well paved water courses that will completely obviate the difficulty of washing during heavy rains. There is yet, however, no planting worth naming, but we have no doubt, from what we see, that it will be done, and done well. Immense sums of money have already been expended by the wealthy citizens of New York upon vaults and monuments, and many of these are works of great elegance and taste. We regret to see such a neglect of planting appropriate trees around these, for they are more expressive than any work of art. We regret, also, to see so many chain and railing enclosures introduced, breaking up the graceful outlines of the grounds. We advise our friends who are laying out cemeteries to go and study Greenwood; and we beg the managers of that beautiful place to lose no time in adding the one thing wanting—appropriate trees.

Baltimore.—Horticulture is looking up here; both professional cultivators and amateurs are manifesting new zeal and a better taste. We have always been surprised that gardening should remain so backward around a city possessing so much wealth and such advantages of climate as Baltimore. Until quite recently lands about the city were very low, but they are now rising rapidly; and there is at present such a general feeling in favor of laying out and improving cemeteries and suburban residences, as will soon give an entirely new appearance to the environs of the city. Messrs. SAMUEL FEAST & SONS are forming a nursery of considerable extent some distance from town, but still carry on their florist business as usual in their city gardens. Mr. JOHN FEAST, whose compact plant establishment is in the heart of the city, is now making great improvements in his houses and in his collection. We noticed a large number of the finest new plants of the day. Mr. ROBERT HOLLIDAY has a very complete and well managed plant establishment. His stock of Camellias is large and in excellent condition, and he has an ample stock of large well grown stuff for winter flowering that will enable him to do a large business in bouquets. He is also about adding a nursery of hardy trees and shrubs, having recently made a purchase of land for that purpose.

One of the most tastefully arranged and well kept city gardens which we have seen in a long time is that of THOMAS WINANS, Esq., of Baltimore. The ground surface has been admirably managed in laying out, and the walks, lawn, trees, and in fact every thing about it, evince both skillful and careful treatment. A border of dwarf pears was particularly interesting to us. They were but a year planted, and yet nearly all were bearing a fair crop of fruit; the specimens were remarkably fine, and the trees in a high state of vigor. We observed some great specimens of *Triumph de Jodoigne*, and *Belle Lucrative; Louise Bonne de Jersey* and many others were finer than we generally see them. *Vicar of Winkfield* did not promise so well, threatening to crack too much. This place affords many valuable hints in the management of city gardens, and is alike creditable to Mr. SAUNDERS, the gardener, and to the liberality and taste of the proprietor, Mr. WINANS. How can a man better employ some of his wealth for his own and family's good than in thus surrounding his dwelling with the beauties and associations of the garden? It is good that there should be, here and there, such a spot as this in the heart of a large city. It is like a green spot in a desert. A mere glance into it gladdens the heart of many a wearied passer by during the day.

Clifton Park, the residence of JOHN HOPKINS, Esq., some four miles from Baltimore, is susceptible of being made one of the finest places in this country. It comprises some thirty acres of ground, having naturally a finely varied and, in some places, a richly wooded surface. There are fine green-houses, a conservatory, graperies, fruit and kitchen gardens, all on a liberal scale, but a change of gardeners has very much retarded improvement, and, what is worse, allowed many things to be seriously injured. The present gardener is doing all in his power to restore what has been lost, but it is a difficult matter in a place of such extent. We hope Mr. HOPKINS will not allow this princely establishment, that might be an honor to himself and the city of Baltimore, and on which he has already spent so much, to remain long in its present neglected condition. The best skill and taste the country affords should be employed in carrying out to completion the original liberal design.

TRANSPORTATION OF TREES.—The transportation of trees from one place to another has now grown into importance, and the rush of other freight on the railroads in the autumn and spring renders it almost impossible to have them forwarded without serious delay. There is a universal complaint about this matter, and we would once more suggest the propriety of founding a *nurserymen's express*, or making an arrangement with the existing companies to send special messengers with trees along all the leading thoroughfares, leaving the principal points where this trade is extensively carried on two or three times a week. We think that railroad companies should issue orders to their agents at all the stations to give preference to trees in all cases where there was more freight than could be sent at once. If this were done, there would be no difficulty; but as it is now, trees fare worse than any other goods whatever.

TO READERS AND CORRESPONDENTS.—Gentlemen of taste who feel interested in horticulture, practical gardeners, fruit growers, &c., are solicited to contribute short essays, rough notes of experience, or interesting facts on any subject that comes within the scope of this journal. Fruit culture, at the present time, is one of the most important branches of horticulture, and the editor is anxious to collect information from all quarters concerning the success or failure of the different varieties under certain circumstances and modes of culture. Specimens of new fruits, flowers, and vegetables are solicted, and all will receive due notice.

THE FRUIT CROP IN WESTERN NEW YORK.—Apples, generally, are neither so abundant nor so fine as usual; a single orchard, or a few trees, here and there, are exceptions. The crop of pears is much below that of last year. Peaches have surprised people by their abundance and fine quality. We have been through New Jersey, Delaware, Maryland, &c., in the midst of the peach season, and saw no finer fruit than has been sold here in large quantities since the 10th of September. The worst feature in our peach business is, that it opens late. *Early York* did not appear in market till the first week in September, and now (Sept. 13) *Crawford's Early*, *Large Early York*, and others of the same season, are coming in freely. *Morris' Whites* and *Old Mixons* will not be ripe for a week or ten days, and *Crawford's Late Melocoton* and *Red Cheek Melocoton*, will not be ripe short of two weeks. It is interesting to observe that some orchards in which there was a full crop last year, are entirely fruitless this, and others that bore none last, are laden this season. Within a few miles we see some orchards bearing well, and others a total failure. Our heaviest crops are in warm, sheltered situations, within a short distance of the shores of Lake Ontario.

A HANDSOME PEACH ORCHARD.—JAMES M. WHITNEY, Esq., of Rochester, has a peach orchard of upward of one thousand trees about half way between this city and Lake Ontario, which we visited on the 13th September. The trees generally are in a vigorous and healthy condition, and the crop very heavy. This orchard occupies a warm, sheltered situation, and seems to have escaped the severe weather last spring, so ruinous to the peach generally in this section. Among those particularly fine we noted *Large Early York*, *Crawford's Early Melocoton*, *Yellow Alberge*, *Jacques' Rare Ripe*, *Morris' White*, *Old Mixon Free*, and *Crawford's Late Melocoton*. *Early Tillotson* is an utter failure—thirty or forty trees stand without a single fruit and *nearly dead*, in the midst of luxuriant and heavily laden trees of other varieties. The *Red Cheek Melocoton* does not succeed well here. Mr. WHITNEY has also a fine young peach orchard of some seven hundred trees just beginning to bear.

A CHINESE PEACH.—In the June number of the *Horticulturist* we published a note from HENRY LYONS, Esq., of Columbia, S. C., describing a Chinese peach. We have now to acknowledge his kindness in sending a pretty colored drawing of the same variety, representing it as medium in size, of a greenish straw color, marbled with red on one side near the base. We believe it has not yet fruited in the north. Its beauty and excellence recommend it to fruit growers in the south, where it appears to be perfectly at home. Mr. LYONS accompanies the drawing with the following note:

I inclose you a drawing of the Chinese peach, which is a very correct copy, but smaller than they usually are, which arose no doubt from the circumstance of our having no rain from the 10th of March to the 10th of July; it did not ripen until the 24th. I am more confirmed every year in the excellence of the variety. I omitted in my description stating the bloom was remarkably large, as much so as the *White Nutmeg*. I will with pleasure, if you desire it, forward you some buds.

I was in hopes I would have been able to forward you some experience on the *Crescent City* strawberry, but the drouth literally burnt them up, with the exception of a few plants which I saved by continual watering. I very much fear, from what little experience I have had, they will never do elsewhere what they do in New Orleans, we lacking two indispensables, viz: *soil* and *climate*. HENRY LYONS.—*Columbia, August* 8, 1853.

NOTES ON ORCHARDS, FRUITS, &c. &c.—The early days of September, 1853, have never been exceeded by a purer atmosphere, or a more brilliant and cheering sun. From the 9th to the 12th it was a luxury to be out of doors, and during that period we rambled out of the city to look at the fruits, as they were ripe and ripening. We went down West North street a distance of two miles, and were delighted to find the door-yards of the people filled with shrubs and trees.

We struck the Ridge, which runs east from Carthage, where the most natural soil for the Peach tree prevails. Being a light loam, it not only produces peaches, but, with a mixture of compost, and other enriching, good crops of apples, pears, plums, and cherries, may be had. On the Ridge, almost every tenant had well-laden trees of peaches, of the *Royal Kensington*, *Sweet Water*, *Early Crawford*, *Yellow Melocoton*, and *Alberge;* certainly a more beautiful sight could not be witnessed than the coloring of the fruit. The season was never better in this region, as our amply-supplied market has shown at fair prices.

We proceeded to the grounds so long occupied by Mr. H. N. LANGWORTHY, comprising some forty-two acres of land, which has been recently added to the "River Bank Nursery" of Messrs. CHERRY & Co. Mr. LANGWORTHY's skill has been shown in the symmetry of his trees, as well as their healthfulness and fruitfulness. His orchard of Apple trees, comprising the earlier as well as the fall and winter kinds, were certainly as fine as we ever saw; and for standards, they will serve an excellent purpose of the new purchasers.

The *Northern Spy*, *Norton's Melon*, *Esopus Spitzenburgh*, *Pomme Grise*, *Winter Calvert*, with *Holland Pippin*, *Talman* and *Green Sweeting*, and *St. Lawrence* trees, were well filled, looking finely. The first two were particularly well grown, and the coloring of the *Melon* was really attractive.

The pears grown on their own stocks, including the *White Doyenné*, or *Virgalieu*, *Onondaga*, or *Swan's Orange*, and *Duchesse d'Angouleme*, were of extraordinary size, and the trees were bending with the weight of fruit.

The grapes, including the *Clinton*, which was nearly colored, and soon to be ripe, with the *Catawba* and *Isabella*, were finely matured in size, and if the season only extends itself without frosts into October, a good crop will be had.

I trust the new occupants will see to it that the trees be kept in their present condition, for truly Mr. LANGWORTHY has left a model orchard and garden grounds. J. H. WATTS.

The peach referred to by Mr. WATTS as "*Sweet Water*," is, as he knows, the *Large Early York;* and what he calls "*Early Crawford*," is *Crawford's Early Melocoton*. We will thank correspondents who write about fruits, to write out the names fully and accurately, when they know them, in order that the reader may know precisely what they are writing about.

WILL you allow me to tell you my own experience in strawberry culture in this place? Of all American strawberries, I find *Burr's New Pine* the highest flavored, and a good bearer; *Black Prince*, great bearer, but sour and poor quality; *Hovey's Seedling*, good bearer in rather moist ground, and poor bearer in very dry; *Rose' Phœnix*, very good bearer. But as our climate is not so hot as in New York for a long time, we find the English strawberries do the best. The *British Queen*, *Keene's Seedling*, and *Alice Maude*, all produce very large crops of finest fruit. Another thing: as the snow falls here as soon as freezing weather begins, and remains until late in April, the plants require but little covering; and when it is removed in the spring, the plants are very green, and the new shoots are pushing out.

Covered as the ground is with snow, the finest roses can be left out all winter, by fastening them to the ground, and covering them with branches of evergreen trees; and by allowing these branches to remain till warm weather, the roses commence growing under the covering, and soon after the removal of the covering put out buds and flowers, and thrive finely. One of my neigh-

bors had a rose in his house which he valued very highly; but as it seemed drooping, he took it out in the coldest weather (here), and laid the rose in the snow on its side in the pot, and covered all deep in the snow. When spring came and warm weather, he uncovered his rose and found it quite recovered, and doing very finely.

Allow me to speak of one thing further. Lately we have seen an account from Russia, that by drying the potato before planting, it was much earlier, stronger, and free from disease. I mentioned this to Mr. WILLIAM FARIS, a very successful gardener, who lives at Sorel, a town about fifty miles north-east of Montreal, and he told me that he has never had any diseased potatoes in his grounds, while his neighbors, who plant their potatoes side by side his lands, only separated by the fence, are every year losing one-half and more by disease; and he told me his plan: early in March, and earlier, he begins and cuts off a small piece (a trifle deeper than is necessary in cooking) from his potatoes, as the family require them them for daily use, and he keeps a box near the kitchen stove, where it remains *very dry* and *warm;* into this box the small pieces of the potato are placed, as the family require potatoes from time to time, until May. He then plants these *very dry pieces*, or cuttings, of potatoes, and they grow very finely. He has potatoes three weeks earlier than his neighbors, and never had a rotten one, though he sometimes sees a spot on one. Mr. FARIS has still some of his old potatoes, and he says they are as good as they were last May; and he has promised me a few, which I hope to send to your State Fair. He did not think of keeping any of his old potatoes, as he had plenty of new ones, until very lately, when he thought of keeping some till fall, and will show them this month at our Provincial Exhibition. Let me say Mr. FARIS is a respectable man, and reliance can be placed on his statements. WILLIAM BUNSTER. — *Montreal, September* 8, 1853.

VINE BORDERS AGAIN — CURCULIO REMEDY. — Mr. MESTON has broken his lance upon me, but I believe I am not yet unhorsed, though my steed was only a dead one. I made no attempt to prove that good grapes could not be grown without animal manure, for I know perfectly well that they can; neither will I now enter into any argument on that subject, which has been ably discussed elsewhere. The facts I stated certainly proved that vine roots are fond of decomposed animal manure, and, so far as I can perceive, Mr. M. has brought forward nothing to disprove this assertion. As for the theory of the growth of roots, I am quite willing to rest the case between his statement and mine for the decision of those who are interested.

I said nothing of the quality of my fruit, except that I had no cause to find fault with it, because I do not consider such testimony of much value; for when one speaks of the results of his own labors, he is apt to produce upon the minds of others only a feeling that they are not listening to a disinterested witness. Moreover, I do not consider the quality of the fruit in any single instance to be of much value as evidence, since it may so easily be affected by other causes. As Mr. M. calls for information on this point, however, and is willing to accept it as a decisive test, I will refer him to the records of the Pennsylvania Horticultural Society, which will show him that my *Black Hamburgh* grapes have received the first premium at every annual exhibition for the last five years; and further, if he will inquire of any of the horticulturists about Philadelphia, he may learn that this character is not confined to the few bunches sent to the exhibition.

As for Mr. M.'s account of his own vines, every reader of horticultural journals must have observed how frequently such stories have been brought forward of the extraordinary growth and productiveness of young vines, which is always attributed to some peculiar construction of the border; and every experienced grape grower knows that such a result proves nothing, except that the luxuriant verdure of the vines is quite equalled by that of the cultivator. Mr. M.'s case, however, presents some remarkably rich features in the evident satisfaction with which he speaks of the quantity and quality of his fruit, in the sentence next succeeding the one in which he tells us it was not yet ripe. The very equivocal compliment of the gentleman from Louisville too, seems to have gratified Mr. M. very much; and perhaps he will be pleased to learn that I can compliment

him in even stronger terms of the same kind, for I assure him that I never had so many grapes in a house one hundred feet long till the vines were five years old, as he had this year on his vines, for I always pinched off every bunch before it even had time to open its blossoms.

I thank Mr. M. very sincerely for his entertaining story, and hope he will continue to report the progress of his vines from year to year.

I am happy to add my testimony in corroboration of Mr. LUDLOW's, as to the efficiency of lime and sulphur as a preventive of the curculio. I have been many years experimenting to find some means *which could be profitably applied* to prevent the ravages of this insect, but have never ripened a dozen plums in an orchard of twenty trees, though they have been covered with fruit every spring. Last spring, however, at the suggestion of Mr. STOKES, of West Philadelphia, I applied the lime and sulphur, according to Mr. LUDLOW's directions, and though some of the fruit was afterwards stung, no ill effect followed; and though I thinned out the fruit a great deal, I was finally forced to prop my trees, and have been regaled for some time past with such fruit as we have never before been able to ripen here. The remedy is so easy that it may be applied extensively, at trifling expense. H. W. T. CLEVELAND.

"I lang hae thought," Mr. Editor,
"A something to have sent you,
Tho' it should serve nae other end,
Than just a kind memento."

I know but little, sir, of the business in which you are engaged, viz: Horticulture and its kindred branches; yet I know enough to wish to know more, and to feel interest in the success of the enterprise. Then, sir, set me down as a well-wisher, and one who, if he had the capacity and leisure, would like to be a contributor. I am a cultivator of fruits, on a small scale—a little enthusiastic (*cracked*, if you please,) on the subject; and *wherever* I find one of kindred feelings, why, sir, I "lo'e him like a vera brither"—"I know no North, no South, no East, no West"—"his people shall be my people, and his God my God."

And here it may be appropriate to mention my admiration for your predecessor, A. J. DOWNING. If men are to be estimated by the good they do while living, long should A. J. DOWNING be remembered with gratitude by his countrymen. He has done more to combine "the useful and the beautiful," than any man of the present age. He has done more to create and model a proper taste for the adornment and decoration of home, to make home, "sweet home," lovely, and thus make men true patriots, than all the politicians that have lived since "ABRAHAM begat ISAAC." Why one with such enlarged and enlightened capacity to enjoy this beautiful world, and the business and pleasure of whose life was to make it still more beautiful, should have been so suddenly and so rudely removed from it, is a mystery alone to be solved in that bright and blissful paradise, where he has gone, and whither we may follow, if we be but "chaste," but "innocent like" him, "as firm in friendship, and as fond in love." But, sir, others who knew him better, and therefore loved him more, have eulogized him in better taste, and more appropriate style, than I can. But my heart was in it, and I could not say less; to say more would be not only useless, but imprudent in me.

Mr. Editor, I have told you that I was a cultivator of fruits in a small way, and having a leisure time at present, my purpose in commencing this communication was simply to comply with a request made by you sometime since, that your readers would note the season of ripening of the different fruits in their respective localities. I had several kinds ripen the present season, but noted only some plums and peaches. And first, as to plums. In this section (Granville county, in which I reside, is one of the northern counties of North Carolina, between the 36th and 37th degrees of north latitude,) *Bolmor's Washington* was the first to ripen—July 20th. The *Red Magnum Bonum*, the 25th of July; and if I have the true *Red Magnum Bonum*, it is a most excellent plum, equal, if not superior to the former as a dessert fruit, larger, of oval shape,

dark-red or purple, and pronounced in flavor superior to the *Washington* by all who tasted. *Imperial Gage* ripe the 25th of July; superior in flavor to either of the former. *Bingham*, about the 1st of August; very good, large plum. *German Prune*, 6th of August; and although very rainy, hung on the tree until nearly dry, and I believe of an ordinary dry season would make good prunes on the tree in this climate. I gathered a few from the tree partially dry, and cured them completely in the sun in a few days.

Peaches.—The first to ripen was the "wee bit" *Nutmeg*, which came the 22d day of June as the harbinger of good things which kind Nature had in store for us; and next the *Early Anne*—good, very good, because just at that time (the 10th of July) there was nothing better. But just eight days after, July the 18th, the *Early Tillotson* was here, fully sustaining its high reputation as an early peach, and two days after, July the 20th, the *Early York* was its competitor for the honor of being called the best; and before I could decide, the 25th of July brought *Cole's Early Red*, "with its *blushing* honors thick upon it," and it's really hard for *that mouth* which tasted all *to say* which was best; but if all were not best, "the last was not least." Then from the 25th to the last of July we had the *Bellegarde*, the *Gross Mignonne*, the *Royal George*, *George the Fourth*, *Crawford's Early*, and the *Monterey*. The four first were large and beautiful to behold, but watery and insipid to the last degree in flavor, hardly equal to a Dutch turnip; and though every tree was loaded to the ground, the curse and the fate of the fig tree should be theirs, if I did not happen to know better. Now, in 1851, all the three first bore fruit the first time, and better and more delicious fruit I never tasted during their season. Then why was it so this year? Why, for six or eight weeks previous to July the 12th, the season had been "as dry as a chip"—neither rain nor dew enough to wet the gossamer as it floated lazily in the hot atmosphere; but from the 12th to the time of ripening, showers innumerable came pattering down both thick and fast—rain, rain, rain—until the poor peaches were drenched to the skin, and through the skin, and being fed on water alone, and having no sunshine to assist in elaborating their own rich saccharine juices, they "were compelled to submit to the force of circumstances" and turn turnip. Doubtless in a more auspicious season they will be, what they long have been, "very hard to beat." But the two latter were very good—*Crawford's Early*, perhaps, as good as it ever was. And here I will remark that there was not a single yellow peach in my collection that seemed at all affected by the wet season. The *Yellow Alberge* ripened next, the first week in August, and a more luscious peach I never tasted—full to overflowing with the richest saccharine juice, tender, sweet, and melting; it was exquisitely delicious, and had this been the fruit which mother Eve "gave also unto her husband," I should feel strongly inclined to excuse her upon the ground that having eaten of it herself, she wanted every body else to have some, and rather than blame, would commend her generosity and benevolence.

Well, sir, having "run away with matters" in praising this peach, while I know the books have said so little for it, it would be well to mention that I may be mistaken as to identity; but I obtained it from the nursery of Messrs. J. & G. Lindley for the *Yellow Alberge*, and it answers to the description in Ellwanger & Barry's catalogue. Be it what it may, it deserves all I have said of it, and more, if I could say it. It is the first year the trees have fruited with me, and "if it holds out as it has begun," I will travel fifty miles on foot to see and taste the peach that beats it.

From the 12th to the 20th of August the *Old Mixon* ripened, and the first peaches that ripened were very, *very* insipid indeed—owing, doubtless, to the wet season; but those that ripened from the 16th to the 20th were fully "worthy of its ancient renown." Then, too, on the 20th of August we have the *Late Admirable*, a very nice peach, and the same date we have *Crawford's Late*, "in fair round belly," "cutting a *swell* over every thing" in peachdom. I measured one this morning nine and a half inches in circumference. The *Pavie de Pomponne* is ripe here on the 20th, but neither so large or so good as the *Crawford's Late*. The *Blood Cling*, the *Catherine Cling*, and the *Heath Cling* have yet to ripen with us, and judging from what I have seen, fruits ripen here just one month sooner than in the neighborhood of Rochester, N. Y.

Mr. Editor, I am unwilling to close this communication, already "unprofitably" long, without saying something of a grape lately found in this vicinity; and if you have an atom of patience left, I promise to be brief. Bunches—medium, loose, composed of from eight to fifteen berries, round, very large, many of which will measure two and a half inches in circumference. Skin—thick, but not so thick as *Scuppernong*, pale red, blackish-red when fully ripe, covered with thick bloom. Flesh—pulpy, juicy, sweet, slightly musky, scent quite musky. It was found growing in this neighborhood in a poor washed place, that had not been in cultivation for many years, climbing over some stunted bushes, and probably if cultivated in a good soil would grow much larger. If any should suppose that I have been describing the grape that is familiary known in this section as the *Muscadine*, I can inform them that although resembling that grape somewhat in shape and flavor, it is not only distinct from it, but a different species of grape. What we call the *Muscadine* is what DOWNING, THOMAS, and others, call the *Black Scuppernong*, with smooth bark on the old wood, and leaves smooth on upper and under surfaces; while the grape which I have attempted to describe has rough, shaggy bark on the old vine, with larger leaves, differently shaped, upper surface dark green, under surface very downy or furred, of a beautiful color.

Well, some may ask, Suppose all this be so, what does it all amount to? Why, just to this, and no more: in size it is one of the most splendid of grapes; it may prove a good wine grape—I can see no reason why it should not—it is well flavored, productive, and does not rot, and is of that species of vine which is easily propagated by cuttings. Ripe the middle of August. RUSTICUS. —*Tar River, Granville county, N. C.*

I HAVE carefully noted the instructions given from time to time in your journal as to the importance of mulching trees; and as I have a large orchard of young trees, I have tried several experiments with tan, chips, straw, spent logwood, &c. The result has satisfied me that nothing is more important in the cultivation of young trees than the protection of the roots by mulching. During the severe drouth of the past summer, all my young trees (with a few exceptions to be named) have thrived beyond my most sanguine expectations without being watered, which I attribute wholly to the fact that the roots were protected by a substantial mulching of turning-chips, tan, &c. I had some ten or fifteen trees deeply mulched with spent logwood—say six to eight inches pressed down to three inches, in a circle of six feet diameter around young trees, which were the most valuable on my place. These trees I find have done nothing this year—some of them have not grown an inch, and I am persuaded that over mulching, like over doctoring, is deadly, and as much to be deprecated and guarded against as intemperance in any other form. If you accord with me, will you please inform your readers in your next number that moderate mulching of trees is good and beneficial, and will save a large proportion of new settings in the dryest season, but that four inches pressed down round a young tree will exclude the sun and air, on which the tree is as dependent as for water and nutriments, and will as surely kill the tree as fourth proof alcohol without water will the man. LUIGI.

I SEND you some caterpillars, different to any thing I have ever seen until last year. They are very bad upon resinous plants—the Cedar and Arbor Vitæ their favorites. But, for an experiment, I took about a dozen from a Cedar and laid them on the walk, and found they took possession of the first plants they came to, which happened to be Chrysanthemums. They travel with great facility, and take their house with them. Last year I saw but few of them, but this year they have come by hundreds and thousands. You will find a cocoon of last year among them. All that I have cut open are like the one I send you. My impression is that the caterpillars leave it when very small, and that there are many in one of these cocoons. It is the most destructive thing I have ever seen, and if it gets ahead is capable of destroying all the Pines and Cedars it comes to. I find they can be got rid of by picking them off and burning them. ROBT. MESTON.

An account of this insect will be found on another page. We are thankful for all information of this kind.

Notices of Books, Pamphlets, &c.

HINTS ON PLANTING ORNAMENTAL TREES, with particular reference to Coniferæ. By STANDISH & NOBLE. Bagshot, England.

For some years there has been an unusual degree of interest taken in evergreen coniferous trees. The amount of money expended on this class of trees is, we believe, without a parallel in the history of tree planting in Great Britain, or in the world. The prices given cheerfully for single specimens of rare sorts, has only been equalled by the memorable tulip mania. This spirit remains yet in full vigor, and bids fair to continue for a long time to come. Any one who has visited Britain recently, and looked into the parks and pleasure grounds, must have been struck with the predominance of evergreens, and especially of the newly introduced species, such as the Deodar Cedar, Auracaria imbricata, &c. Messrs. STANDISH & NOBLE, who have issued the little manual we notice, are among the most noted and intelligent growers of these trees, and being frequently consulted respecting the character of trees and mode of planting and management, have been induced to put some practical instructions in this form. We wish we had such a book adapted to this country, and we must have it soon. We transfer the following remarks to our pages, because they present considerations as well worthy the attention of the planter here as in England.

"PLANTING IN EXPOSED SITUATIONS.—The position of the different groups and detached specimens having been decided on, the first consideration should refer to drainage. A drain should lead from or intersect each position intended for a single specimen, and a number in proportion to the size be in connection with the spaces allotted for each group. It will not be always necessary to afford separate drains to each. A judicious application of cross-draining, made with reference to the natural declivities of the ground, will equally accomplish the desired purpose.

"The point next demanding attention will be trenching. The situations for single trees should be trenched to the extent of at least ten feet in diameter, and eighteen or twenty inches deep, and those for the groups of a like depth, and considerably wider every way than will be required for the reception of the permanent trees. After the necessary draining and trenching, and if a season's delay is of no moment, it will be found an excellent system to take a root crop before planting. The manure and consequent cultivation will bring the soil into an excellent condition for the reception of plants; and although a season is *apparently* lost, it will not prove so in reality. The increased rapidity of growth in soil so well prepared will more than compensate the seeming loss of time.

"There will, of course, occur many situations where this application of manure, as far as the trees intended to be planted are concerned, will be unnecessary, while in others of a very inferior character, both a liberal manuring and cultivation will be requisite to bring the soil into a condition for their reception, with fair prospects of success. The amount of manure and subsequent cultivation will, of course, be given in proportion as circumstances may seem to demand them.

"But there is an unhappy propensity prevalent to consider a tree as destitute of the ordinary wants of plants in general, and to believe that if it is provided with sufficient soil to cover its roots, no matter what the quality may be, it can not possibly fail to thrive; but, on the contrary, care and attention are as imperative in preparing the soil for trees, and will be followed with equally satisfactory results, as in the treatment of any other of our cultivated plants.

"An important auxiliary to success in planting, in the kind of situation we are at present treating on, is shelter. From its absence alone may be attributed many failures. The conditions which plants enjoy while in the sheltered nursery-beds are of so opposite a character to what they experience when removed to open situations, exposed to drying winds and scorching suns, and wholly destitute of shelter, that frequent failures, where no precautionary measures are taken, will not upon reflection cause much surprise.

"The preliminaries of draining and trenching having been properly attended to, and the soil in a condition to receive the plants, and the exact spot for each *permanent* tree determined on, mix in the site for each, if the state of the soil seems to demand it, a portion of decaying vegetable matter, as rotten leaves, for the immediate reception of the plants.

"Then, with the exception of such prepared sites, plant the whole of the trenched ground somewhat thickly with common evergreen trees and shrubs, for the purpose of affording shelter to the ornamental and permanent specimens subsequently to be placed there. If the situation is very much exposed, and the soil unfavorable, the trees planted for shelter should be allowed to make one or two seasons' growth before placing the permanent specimens. And, in the meantime, they too should be prepared to meet the difficulties of their intended new situations, by a course of treatment, for which the following instructions are offered: Procure some pieces of elm plank about 1½ inch square and nine inches long, also a quantity of larch stakes about 1½ inch in diameter, and of the same length with the pieces of elm, and split them longitudinally. Then take four pieces of the elm, one for each corner, and nail to them the pieces of larch, leaving spaces about three-quarters of an inch between each two, and on one side, or rather the top, entirely open. You have now the skeleton of a box, or, perhaps, it might be properly called a crate, for the reception of a plant, and the spaces between the bars are to allow free egress to the roots. Prepare as many crates as you intend removing plants to exposed situations. Have ready some good turfy loam, with which is mixed a little leaf-mold, fill the crates with the compost, and place a plant in each, as in the ordinary mode of potting. At first they should be placed in sheltered situations, but removal should take place twice a-year, in spring and autumn; and at each remove a less sheltered situation should be chosen, till they at last occupy a tolerably exposed locality. They should always be kept planted as deep as the top of the crate. At the close of the second season they will be in a suitable condition to be planted in their permanent places. They need not be removed from their crates, as they will be quite rotten before the roots are of sufficient size to be obstructed by them. By adopting such a course, success will be obtained where every other means have failed.

"It is also an excellent system to employ crates for preparing trees intended for removal, even to favorable situations. By using them larger and stronger, large and valuable specimens may be removed without risk of failure; and the system is especially to be recommended for trees which are known to transplant badly.

"In determining the distances which the permanent plants should be placed from each other, no rule can of course be given. As they are ultimately to form a picturesque arrangement, a design will, of course, have been previously decided on, in which their individual characters, as well as effect in combination, will be recognised. Due attention to this will prevent much subsequent vexation. Where several are to form a group, care must be taken that their ultimate appearance will not be that of a clump—the most unpicturesque and artificial of all arrangement, and is that best calculated to destroy the individual character of the trees composing it. They should be so placed that their branches shall mingle without destroying each other. A number of trees, though in a great measure detached from each other, will, when viewed from a little distance, seem to mingle together. And the arrangement may be such, that, from whatever position they are seen, a different form of outline shall be presented to the eye. Variety is thus produced; and while each tree preserves its individual character upon a close examination, the distant effect of the whole is that of a picturesque group. There is no necessity for crowding valuable trees together for the purpose of producing the appearance of a close wood, when seen from a distance.

"We have dwelt above on the advantages produced by a proper and timely application of shelter to trees in exposed places. But highly injurious results may arise from it, if its removal is not attended to when it in any way obstructs the progress of the trees it was intended to protect. It must never be forgotten, that such aids are only valuable in assisting the young trees

the sooner to become established, and that it must be wholly, but gradually, removed, as the latter become sufficiently robust to be independent of such assistance.

"In selecting plants for the permanent specimens, some care will be necessary, as much of the ultimate success will depend on the character of those employed. As a general rule, in proportion to the exposure of the situation, should the plants chosen be smaller, always however supposing them to be thoroughly healthy and robust, and such as have not previously been favored by soil or situation to an undue extent. Nothing is gained by employing large plants in exposed places. On the contrary, much time is often lost by the practice, even though they should be in the best possible condition. The larger and taller the plants, the more are they exposed to the untoward circumstances consequent on the situation.* Plants of but a few feet in height, when placed in exposed situations, require the assistance of a stake, or the winds quickly damage them to a great extent; and the utmost care will not wholly preserve them from injury. And when others of eight or ten feet in height, as are sometimes employed, with the intention of producing immediate effect, are placed in similar situations, they frequently prove worse than useless. Two or three stakes are required to each, to enable them to withstand the influence of the gales; but no amount of available support will prevent them from being disturbed. The action, though slight at first, is every day augmented. They become loosened in the earth. Water—especially if the soil is tenacious—accumulates at the base of the stem and about the roots, chilling and retarding their vegetative powers. During this, rapid evaporation is draining the tissues of the plants, the loss of which their dormant powers can not recruit. Death, or an approximation, ensues. The foliage dies, and their appearance is calculated to disfigure rather than to beautify the places they occupy. Nor do matters often assume a more cheerful aspect with those which survive to the following season. Sometimes a feeble attempt at vegetation is perceived, but it too often proves an expiring effort. Many will linger on for years, and a few ultimately succeed. But not only would time and labor have both been economised, but the desired result have been more fully arrived at, by adopting the *apparently* slower means of employing young trees, and taking the necessary precaution to ensure their success.

"There are, of course, many situations, where large trees can not only be planted with perfect safety, but where it will be highly requisite to do so, and where no risk will attend their removal, if ordinary precautions are taken. It is in open and exposed situations that we are endeavoring to show the inexpediency of employing them.

For several years after planting, the soil about the trees should be frequently stirred, all weeds destroyed, and every obstruction to their progress removed: and as those employed for shelter encroach upon the permanent specimens, they should be curtailed, and, when necessary, wholly removed; in fact, their removal should be effected before they encroach. By thus progressively destroying the shelter, sometimes a few branches, and occasionaly a whole tree, as circumstances seem to demand, the change is gradually produced and no injurious check results to the remaining plants. Of course, the shelter from the boundaries of the groups, and from the most exposed situations, will be the last removed. And for the purpose of giving depth and massiness to some of the larger groups, a part of the common trees may be left as a back-ground to the more valuable specimens. And such an arrangement could be provided for to a greater extent by keeping it in view when planting.

"It will frequently be found highly advantageous to include what are ultimately to be detached groups and single trees into one common plantation when young. A greater amount of shelter will be afforded, and each tree, while it assists to protect the other, will participate in the general benefit. And when the whole of the shelter is ultimately removed, the permanent trees will appear in their intended positions and relations.

*So sensible are the Scotch planters of the disadvantage of employing large trees upon their bleak mountain sides, that the neighboring nurserymen find plants beyond two or three feet high as almost dead stock; the sale for such being so limited, that any forest trees beyond that height are generally rooted out and used as fire-wood.

"The great change of climate which plants experience when removed from the nursery to open and exposed situations, is a principal cause of their frequent failure there. The comparatively dry state of the atmosphere in the latter is not the least prominent source of injury. Wherever vegetation is scanty, there will the atmosphere be deficient in moisture, a subject of great importance when considered in relation to the progress of young trees. And as vegetation not only participates in the benefits, but materially augments the atmospheric moisture, of a district, it follows that, by employing other trees as shelter to those we are most solicitous about, we combine several essentials to success, viz., breaking the force of winds, affording a genial shelter, and condensing and retaining a large amount of moisture.

"What is termed 'dead' shelter, *i., e.*, close hedges, reed fences, and similar expedients, is often employed as temporary protection to young trees in exposed places, but the advantages derived from such, to say nothing of its many inconveniences, and its anything but attractive appearance, is not nearly so great as that arising from the employment of living trees. The former is every day decreasing in efficiency, the latter becoming more valuable.

"With due attention to the several points which have been dwelt on, viz., draining, trenching, shelter, and a proper selection of plants, aided by a thorough system of subsequent management, success will be attained in almost any situation, and under a great diversity of circumstances. Failures in planting oftener arise from an injudicious or imperfect course of treatment, or from a bad selection of plants, than from anything really antagonistic in the soil or situation."

Answers to Correspondents.

I THINK highly of two articles in your August number — the one on "Shelter," and the other on "Raising Fruits from Seeds." On these views I have been humbly practicing, as you may recollect by my private letter a year or more ago. I will only say now that my additional observation and experience greatly strengthen the views I then expressed, and which you have so ably advocated in your very useful periodical. I set it down as an axiom, that the two great points are, to improve the climate on the one hand, and on the other, by a reproduction from seeds, to adapt the finest fruits to our climate.

My wood, of which I wrote you, and which I am leaving around my small orchard lots, is deciduous, and it has been, and still is, a part of my plan to change it gradually, so as to be in considerable part evergreen. For this purpose I have been looking considerably to the common Hemlock, White Pine, and Red Cedar, as being indigenous, and I have now a lot of young Cedars from seed, and thousands of small Hemlocks, on which I have been experimenting, and I intend planting pretty largely the coming spring. But small Pines are not easily got, and I shall be greatly obliged to you, or your correspondents, for the best and cheapest mode of procuring —

1. White Pine seeds, including the time of their ripening on the trees, and the time and manner, and most suitable soil, for sowing.

2. The same of Pitch or Yellow Pine.

3. Where, and at what probable prices, the following seeds can be had, viz: Arbor Vitæ (native and foreign), Norway Spruce, Fir, and the Himalayan Cedar, and any other evergreen the seeds of which can be readily procured and easily grown. Those who are desirous of sheltering gardens, can well buy; but those who want to plant large numbers, will do best to grow them from seed, and have them on the ground at the right period for planting.

4. The best soil, time, and manner of planting. ELI NICHOLS.

The White Pine, Yellow or Pitch Pine, and American Arbor Vitæ, can be easily collected in many parts of the country. We do not know the usual prices. Mr. JOHN DICK, of Kingsessing, Philadelphia, has occasionally supplied us with seeds of native trees. The

Chinese Arbor Vitæ, Norway Spruce, &c., you must import. Mr. G. G. Sheppard, of New York, who is agent for some of the best foreign seedsmen, can obtain them for you. The most successful way we have tried of growing evergreens from seed in the open air is, to select a strip of light sandy soil, say eight feet wide, surround it with boards, to make it like a box. Sow the seeds in this, and make a cover or awning of heavy sheeting to place over it at the distance of eighteen or twenty inches from the surface of the ground. This keeps off the hot sun, and not only promotes the vegetation of the seed, but prevents the young plants from being scorched when they push through the ground. Of course, the beds must be kept regularly and very carefully watered. The awning might be withdrawn at night.

On the street in front of my residence is a handsome row of Elms and Button Balls of some fifty years growth, with two Ash trees included. On either side of these two Ash trees the Elm is sickly, and only about half the size of the others. It has been suggested that the Ash injures the Elm and other trees, when brought into immediate proximity. Can you enlighten me on that point? If it is so, I will remove the Ash trees to save the Elms, which I think will soon die. (1.)

I have an Osage Orange hedge, planted a year ago last spring, about twenty rods long, separating my lawn from my carriage-road. I want to make a hedge about four feet high. How much wood should I leave each year in cutting it down? and as it is very vigorous, would it answer to cut it down twice each season? and if so, what time in the summer? (2.) J. W. F.—*Milford, Conn.*

(1.) The Ash, having immense masses of fibrous roots that rise nearly to the surface of the ground, is injurious to the growth of grass, or any other plants in its shade or near the roots. We have never known or heard of it being otherwise injurious to trees or plants growing near it. If the roots of the Ash trees on your grounds are injuring the neighboring Elms by appropriating their food, cut a trench around them pretty close up to the tree, and the difficulty will be remedied.

(2.) Your Osage Orange hedge should have been cut down last spring (April), within four or five inches of the old wood; then, if it grew freely, it should have been cut again in July, leaving about three or four inches of this season's growth. We cut ours *three* times a year, and it has a good effect. Instead of allowing long shoots to be made and cut away, the frequent shearing throws the growth into the lateral shoots and *thickens* the hedge, which is the great point aimed at. The time to cut is when a crop of strong shoots have been thrown up from the top of the hedge, like a brush, and when these shoots have attained maturity enough to show perfect buds on the lower parts intended to be left.

If it is conceded (as it seems to be) that iron filings, bone dust (or some constituent of that kind), and unslaked lime are the best ingredients to apply to pears on quince stocks, will you have the goodness to inform me (and I dare say many of your readers may also be profited by this information) how to proportion these materials, and how much of the preparation should be applied to small Pear trees one year from the bud: also, how much to large standard Pear trees? An Old Subscriber.—*Sand Hill.*

We have no particular experience in the application of these materials to Pears. Bone dust, however, we know to be a valuable fertilizer, and in poor soils we should think a quart worked into the surface of the soil as a top dressing would be sufficient for a yearling tree, and a peck would not be too much for a large standard tree. Perhaps some of our readers may have experience in these matters.

I was much annoyed last spring with a large reddish-brown bug, dark on the back and reddish on the under side, that attacked many of my young trees, stripping them entirely of their leaves and blossoms. The Plum and Cherry they seem particularly attached to, though they prey upon Pears, Roses, Horse Chestnuts, Abeles, Elms, &c., &c., eating all young and tender leaves as fast as they make their appearance. From one Cherry, about eight feet high, I picked off over two hundred and fifty in one evening. I endeavored to save a few kinds of cherries that I was anxious to test, but after destroying from 1000 to 2000 a night for over a week, and seeing no diminution of numbers, to appearance, I gave it up in despair. Should they increase in numbers another year in the ratio bugs and caterpillars usually do, they must do an immense damage, as they work nights when it is less convenient to fight than it would be by day. Now I wish to ask if you can tell what the habits of the bug are, and how much we shall have to fear from them hereafter, and if any thing can be done toward extermination?—*Trumansburg, N. Y.*

The insect referred to must be the May beetle (*Phyllophaga quercina*, of Harris' Treatise,) very destructive both in the perfect and grub state. The grub is whitish, with a brown head, living in the earth and feeding on the roots of plants. Last spring it was unusually abundant—entire garden crops, strawberry beds, young trees, &c., were indiscriminately destroyed by it in all quarters. In gardens the grub should be continually sought for and destroyed in spading the ground. Add to this throwing up the ground to the action of frost in winter, and apply salt, soot, &c., this pest may in a great measure be got rid of. The perfect insects attack the leaves, operating in the night. They may be shaken from the trees either at night or early in the morning upon cloths spread out to receive them, and, as Prof. Harris suggests, be killed by throwing them into boiling water.

In your August number, page 366, you say thus: "We do not believe it impossible for pistillate plants to produce fruit without the aid of staminates, for we have abundant evidence to the contrary." And in your September number, page 399, you say: "It is well understood, and has been for fifty years, that no variety wanting in stamens will bear a crop by itself." Please state which of these is your *actual opinion*, for when such contradictions appear we don't know which side you are upon. Wm. R. Prince.—*Flushing, L. I.*

Our *actual* opinion is this: that a pistillate by itself may, and often does, produce fruit to some extent, but that to ensure what is called a crop it is absolutely necessary to plant staminates near them. This is plainly enough what was meant by the remark you have quoted.

Camphor vs. Pea-Bugs.—Having observed in the *Horticulturist* an inquiry relative to seed peas damaged by bugs, I will offer a remedy, perhaps not new, but new to me. Four years ago last spring my seed peas were more than half destroyed by bugs, the largest and best varieties being most injured. The summer following I had boxes made, one for each variety, with a cover; and when the peas were gathered, I put into each box, with two quarts of peas, from six to eight bits of gum camphor, the size of a large pea, and mixed them together, and closed the box. The next spring there was not a pea injured. I have pursued the same course every year since, and have not had one pea affected by bugs. J. Berry.—*Channahon, Ill.*

Fruits Received.—*Plums.*—Fine specimens of *Dennison's Superb*, *Dorr's Favorite*, and *Howard's Favorite*, from E. Dorr, Esq., Albany, N. Y. These are all large and handsome varieties of good quality. *Dorr's Favorite* is the best, being nearly first rate.

Pears.—The *Pulsifer*, from Smiley Shepherd, Esq., Hennepin, Ill. *Hosenschenck*, or *Schenck's August*, from Messrs. Thorp, Smith, Hanchett & Co., Syracuse. *Kirtland*, from Dr. Kirtland, Cleveland, Ohio. This is an excellent variety, and the specimens sent were of much larger size than we supposed this variety ever attained.

Horticultural Societies.

The New York Horticultural Society is making some effort to establish some sort of an experimental garden. In their proceedings they speak of it as a "Horticultural Garden." We presume it is intended to be something like Chiswick to the London Horticultural Society; we hope they will succeed. The wealthy citizens of New York should give it their countenance and support freely and liberally, that the great commercial metropolis may have a horticultural institution worthy of her. The costliness of dwellings, hotels, restaurants, places of amusement, dress, modes of living, &c., knows no bounds in New York, and has no parallel any where. Will they do nothing for horticulture but purchase bouquets? We shall see.

Albany and Rensselaer Horticultural Society.—The following is the list of premiums awarded at the Annual Show of this Society, held at Van Vechten Hall, Albany, September 7th and 8th, 1853:

Fruits.—*Apples*—For the best and most extensive collection, to Dr. Herman Wendell, $3, for the best. For the second best, do., $2.

Pears—For the best and most extensive collection (sixty-five varieties), to Dr. Wendell, $3. For the second best (thirty-six varieties), to James Wilson, $2.

For the best six varieties, to E. Corning, Jr., for Louise Bonne de Jersey, Seckel, White Doyenné, Gansell's Bergamot, Barlett, and Doyenné Gris, $2.

For the best one variety, to James Wilson, for White Doyenné, $1.

Peaches—For the best and most extensive collection, to Dr. Dickson, of New Scotland, for six varieties, $3. For second best, one variety, to J. Mayell, $2.

For the best three varieties, to J. M. Myers, of Bethlehem, for Pres'dent, Morris White, and Early York, $2.

Best one variety, to J. S. Gould, for Royal George, $1.

Plums—For the best and most extensive collection, to E. Dorr, $3. For the second best five varieties, to V. P. Douw, $2.

For the best Seedling, to E. Dorr, for a large and very beautiful variety, called by Mr. D. "Howard's Favorite," $2.

Nectarines—For best two varieties, to J. S. Goold, for Elruge and Red Roman, $2.

For the best one variety, to J. S. Goold, for Red Roman, $1.

Quinces—For best exhibited, to J. S. Goold, $1.

Grapes—For the best one variety of foreign, open culture, to J. S. Goold, for Golden Chasselas.

Grapes, Native—For the best and most extensive exhibition, to E. Dorr, for four varieties, $3.

For the best two varieties, to J. S. Goold, for Catawba and Isabella, $2.

For best one variety, to Mrs. James Goold, for Isabella, $1.

Grapes, Foreign—Grown under glass, to Joel Rathbone, for a collection of nine varieties, all of which were beautifully colored, and in very large clusters, $3.

For the best two varieties, to E. Corning, Jr., for Zinfindal and Black Hamburgh, $2.

For best one variety, to E. Corning, Jr., Grisly Frontignan, $1.

C. P. Williams, Esq., sent in a collection of four varieties, too late for competition, all of which were in large sized clusters and berries, as well as highly and beautifully colored.

For basket of assorted fruits, to Mrs. Van Namee, of Pittstown, $2.

Mrs. Van Namee also exhibited a collection of native fruits, which attracted much attention, and to which the committee awarded a diploma.

GREEN-HOUSE PLANTS.—The committee notice that the premium awarded at the June exhibition to V. P. Douw, for three best Pelargoniums, was by mistake credited to L. Menand, and wish to correct the error.

The committe report that there was exhibited a large number of very choice plants in pots, and evergreens, which were exceedingly well grown, and show great skill in their culture. The collection shown by L. Menand was particularly worthy of notice, but he refused to enter them for competition. They award the premium.

Best ten Plants, to E. Corning, Jr.; Morris Walsh, gr.—For Manettia coccinea, Erica transparens, Amyrillis vitatta, Vinca rosea and alba, Ixora crocata, Taberna-montana coronaria, Bouvardia triphylla, Lantania (species).

Best six Plants, to Joel Rathbone; Wm. Bennett, gr.—For Vinca alba and rosea, Allamanda Schottii, Cuphea platycentra, Plumbago larpenta, and Achimines longiflora.

Best three Plants, to E. Corning, Jr.—For Helitropium Peruvianum, Abelia rupestris, and Cuphea platycentra.

CUT FLOWERS.—*Dahlias*—Best and most extensive display, to James Wilson, for fifty varieties, $2.

Best twelve dissimilar blooms, to James Wilson, for Mogul, Seraph Resseguer, Madam Zahler, Lady of the Lake, Tippecanoe, Cleopatra, Constantia, Lady Sale, Joshua Longstreth, $2.

Best six dissimilar blooms, to James Wilson, for Joshua Longstreth, Walter Hillson, Rainbow, Belle de Paris, Mogul, Tippecanoe, $1.

Best Dahlia, to James Wilson, for Box.

Phloxes—Best ten distinct varieties, to James Wilson, for Princess Marianna, Acuminata alba, Reine des Phloxes, Beliraine, Eliza, Harrisonii, Marius, Alba purpurea, Speciosa, Eucharis, $2.

German Asters—Best and most extensive display, to Wm. Newcomb, for twenty varieties, $2. Second best, to E. C. McIntosh, $1.

Verbenas—Best twelve varieties, to James Wilson, for Blue Bonnet, St. Margaret, Climax, Orb of Day, Defiance, Isabel, Viscata, Amazon, Smith's Exquisite, Iphigene, Blue Defiance, General Brea, $2.

Best six varieties, to Mrs. Van Namee, for Beauty Supreme, Defiance, St. Margaret, Striped Eclipse, Jenny Lind, Harlequin, $1.

Native Plants—Best exhibition, to Mrs. Van Namee, sixty-five varieties, $2.

BOUQUETS, FLORAL DESIGNS, &c.—Best round vase, to James Wilson, $2.

Best flat parlor, to Mrs. J. T. Van Namee, $2.

Best round hand, to J. Wilson, $1.

Best flat hand, to James Wilson, $1.

Best basket bouquet, to Mrs. J. T. Van Namee, $1.

Best floral design, to Mrs. J. T. Van Namee, for a beautiful floral table, surmounted by a candelabra, $3.

The committee wish particularly to commend the basket bouquets, entered by Mrs. V. P. Douw, of Greenbush, and regret that they did not come within the rules.

VEGETABLES.—The committee report that there were but few vegetables exhibited; that those were good, generally, and in some instances very fine.

The committee very much regret that vegetable growers in this vicinity do not take more interest in these exhibitions. The finer products, such as fruit and flowers, seem to be engrossing attention to the exclusion of more substantial ones. The vegetable department, supplied, as it might be, from the upland and island gardens of this vicinity, would be as attractive and instructive as any in the exhibition, and it is earnestly hoped that those having it in their power will, hereafter, make liberal contributions, so that this part of the show may command its proper position.

The principal exhibitors were Messrs. E. Corning, Jr., Wm. Newcomb, John S. Goold, V. P. Douw, E. C. McIntosh, W. C. Halsey, &c.

Premiums are awarded as follows: Wm. Newcomb, of Pittstown, for the best six specimens of Martinias, $1. E. Corning, Jr., for the best Winter Squashes, $1. V. P. Douw, six specimens Long Blood Beet, $1. John S. Goold, six specimens Carrots, $1. V. P. Douw, six specimens Parsnips, $1. E. C. McIntosh, six specimens Egg Plants, $1. V. P. Douw, two heads Winter Cabbage, $1. E. C. McIntosh, six roots Celery, $1. E. C. McIntosh, half a peck Tomatoes, $1. Wm. Newcomb, best exhibition different varieties Tomatoes, $1. V. P. Douw, best specimens Okra, $1. John S. Goold, best Citron Melon, $1. E. C. McIntosh, two varieties Watermelon, $1.

JOSEPH WARREN, *Secretary.* HERMAN WENDELL, M. D., *President.*

PENNSYLVANIA HORTICULTURAL SOCIETY.—AD INTERIM REPORT OF THE FRUIT COMMITTEE FOR JULY AND AUGUST.—The Fruit Committee respectfully report, that since the June meeting of the Society the following specimens of Fruits have been submitted to their examination:

From Mr. TAGE, of Burlington.—Fine specimens of the *Moyamensing* strawberry. A description of this valuable variety was given in the last ad interim report.

From the Rev. S. C. BRINCKLE, Wilmington, Del.—Specimens of three varieties of cherries:

1. *Büttner's Yellow*—Rather large, heart-shaped, of a waxen yellow color; stem from an inch to an inch and a half long, slender, inserted in an open superficial cavity; stone small; flesh firm, yellowish-white; flavor sweet and fine; quality "very good."

2. *Late Bigarreau*—A seedling of Prof. KIRTLAND; large; obtuse heart-shaped; bright crimson, delicately mottled; stem an inch and a half long, inserted in a wide, open cavity; stone medium; flesh firm, crisp, yellowish-white; flavor pleasant; quality "very good."

3. *Büttner's Morello*—Of medium size; roundish; deep crimson; stem an inch and a quarter long, slender, inserted in a deep moderately wide cavity; flavor acid; quality scarcely "good."

From Dr. E. W. CARPENTER, Lancaster.—Magnificent specimens of four varieties of cherries:

1. *Napoleon Bigarreau*—Very large, some of them weighing eighty-four grains Troy. A branch fourteen inches long contained seventy cherries, and weighed eleven ounces, of which the wood and foliage constituted two ounces. This is a very productive variety, and of "very good" quality.

2. *Graffion*—Another very productive variety of "very good" quality. Some of the specimens were even larger than those of the *Napoleon Bigarreau*, and weighed ninety-two grains Troy. A branch seven inches long, containing forty-four cherries, weighed seven ounces, including the wood and foliage which weighed one ounce.

3. *English Morello*—Remarkably fine, nearly three inches in circumference; quality "best" for culinary purposes.

4. *Early and Late*—In size, form, color, and quality, very similar to the preceding.

From Mr. CASPER HILLER, Lancaster county.—Very handsome specimens of four varieties of cherries:

1. *Conestoga.*—This fine variety originated in Conestoga township, Lancaster county, Penn. Fruit very large; obtuse heart-shaped, slightly indented at the apex; dark purple; stem from an inch and three-quarters to two and a quarter long, slender, inserted in an open cavity; flesh purplish, firm; flavor sugary and very pleasant; quality "best."

2. *Black Tartarian*—Fine specimens of this delicious variety.

3. *Graffion*—Known also as the *Amber of Coxe*, the *Yellow Spanish*, and the *Bigarreau.* Fair specimens.

4. *White Bigarreau*—Common in our market. Sometimes confounded with the *Graffion*, from which it differs in being more regularly heart-shaped and of a lighter color.

From ALEXANDER PARKER, of this city.—Four varieties of plums:

1. Seedling plum—Beautiful specimens, resembling the *Mirabolan.* Above medium, round, scarlet; stem half an inch long, slender; flesh greenish yellow, juicy; flavor ordinary; quality "good" for the season; period of maturity last of June and beginning of July.

2. Another seedling—A few days later than the preceding, but in other respects very similar to it.

3. *Parker's Mammoth*—Very large, nearly six inches in circumference. It closely resembles the *Washington*, with which it is probably identical.

4. *Bingham Plum*—Beautiful specimens. Large; truncated oval; greenish-yellow, occasionally with delicate carmine dots on the exposed side; suture on one side extending from the base to the apex; stem three-quarters of an inch long, by one-twelfth thick, inserted in a deep, narrow depression; stone adherent; flesh yellowish, juicy; flavor pleasant; quality "very good."

From ISAAC B. BAXTER.—The *Musch Musch Apricot*, and a plum imported from France as the *Royale Hative*. The latter is not true to name, as the color of the *Royale Hative* is purple. The specimens exhibited by Mr. BAXTER were large; oval; of a green color; unadherent; quality "very good."

From ALAN W. CORSON, Montgomery county.—A box of pears grown on the premises of Mr. SCHLATER. Size medium; long pyriform; yellowish-green, and on the exposed side sometimes a fawn colored cheek with a few red dots; stem an inch long by one-eighth thick, inserted occasionally somewhat obliquely and without depression; calyx set in a superficial basin; seed small, black, often abortive; flesh yellowish-white, rather granular, moderately juicy; pleasant flavor; quality "good." The variety is probably the English *Jargonelle*, the *Eparyne* of the French.

From THOMAS HANCOCK, Burlington, N. J.—Specimens of eight varieties of pears:

Edwards' Meadow, quality indifferent. *Dearborn's Seedling*, "good." *Bloodgood*, "very good." *Manning's Elizabeth*, "very good." *Rostiezer*, "best." *Tatnall's Harvest*, scarcely good. *Beurré d' Amalis*, fine specimens. *Limon*, "very good."

From ROBERT BUIST.—Twelve varieties of pears and two of apples:

The specimens were beautiful, but not sufficiently mature to test their quality. They comprise the following kinds: Pears.—*Andrews, Bartlett, Belle de Bruxelles, Beurré Goubault, Capiaumont, Collins, Crassane, Doyenné Defais, Flemish Beauty, Julienne*, and two unknown. Apples.—*Irish Codlin*, and *Rambour d'Eté.*

From SAMUEL OTT.—Two varieties of plums and three of pears:

1. A seedling plum, raised by JOHN COPE, of Southwark. Large; an inch and three quarters long by one and a half broad; long oval; dark purple; stem three-fourths of an inch long, slender; flesh not very juicy, free from the stone; flavor acid; quality "good" for culinary purposes.

2. A cling variety of the *Red Magnum Bonum;* very large; oval; purple; stem five-eights of an inch long by one-twelfth thick; quality "good."

3. The *Julienne* pear—Fine specimens.

4. The *Tyson*—Handsome specimens; quality "best."

5. The *Ott.*—This is the fifth consecutive year that we have had an opportunity of testing the quality of this fine Pennsylvania fruit, which we regard as the most delicious of all summer pears.

KENTUCKY HORTICULTURAL SOCIETY.—The drenching rain of Saturday did not prevent our spirited horticulturists from bringing many fine specimens of fruits, vegetables, and flowers to the regular weekly exhibition.

In peaches we noticed Leopold, Grosse Mignonne, Red Magdalen, Crawford's Late, Pavie Pomponne, Yellow Admirable, and Grosse Admirable, from the President, L. Young. Buena Vista and two nameless varieties, from O. Hite. Grosse Mignonne, Columbia, and a seedling from G. Herr. Large Melocoton, from G. Heinsohn, Samuel Craik, R. Hoskins, and Mrs. Holloway, of Richmond, Ky. Crawford's Late, from Mrs. Holloway, of Richmond. Admirable, from J. L. Kalfus, J. Johnson, and S. Cassaday. Catherine, Beuna Vista, and Cary's Seedling, from C. C. Cary. Druid Hill and two nameless varieties, from Judge Robertson. Heath, from Samuel Craik and J. Johnson. Surprise, from J. Johnson. Williamson's Free, from R. Hoskins.

Pears.—We noticed fine specimens of Bellflower, Taylor, and Seckle, from George Herr. Bergamot, White Doyenné, and Preserving Pears, from C. C. Cary, Bartlett and Ambrosia, from L. Young. Bartlett, Summer Beauty, and Summer Bergamot, from J. L. Kalfus. White Doyenne, from Dr. Galt and Wm. Mix. A nameless variety from Judge Robertson.

Apples—Holland Pippin and Maiden's Blush, from Judge Robertson. Holland Pippin, from J. Stivers. Burns' seedling and Hawthornden, from G. Heinsohn. Rambo, extra large and fine, from N. Arterburn. Gloria Mundi and a seedling, from E. D. Hobbs. Maiden's Blush, from Dr. Galt.

Quinces—Fine specimens from W. L. Prather & Brother, Mrs. Peay, and N. Arterburn.

Watermelons—Long Island, weighing 40, 41, and 41½ pounds, from Mr. Nicholson.

Egg Plants—extra fine and large, measuring 26 inches around, from A. G. Munn.

Bull-nose Sweet Peppers—the best shown this year, from Capt. James Rudd.

Early Celery—from A. G. Munn.

Grapes—Isabella, Norton's Seedling, Heabemont, Madeira, from Dr. Galt. Red Sweet-water, from Frederick Kaye. Catawba, from A. G. Munn, M. Way, and Dr. Galt.

Plums—Yellow Egg, a matchless, fine, large basket of this splendid plum, from J. B. Anderson. Yellow Egg, from F. Kaye and G. Herr. Italian Prune, Victoria, and Lombard, from L. Young. Yellow Gage, from G. Herr. Etty's Gage, from N. Arterburn. Small yellow plum. from Mrs. Holloway, for a name, Richmond, Ky.

Necturines, from F. Kaye.

Filberts, very large and fine, from N. Arterburn.

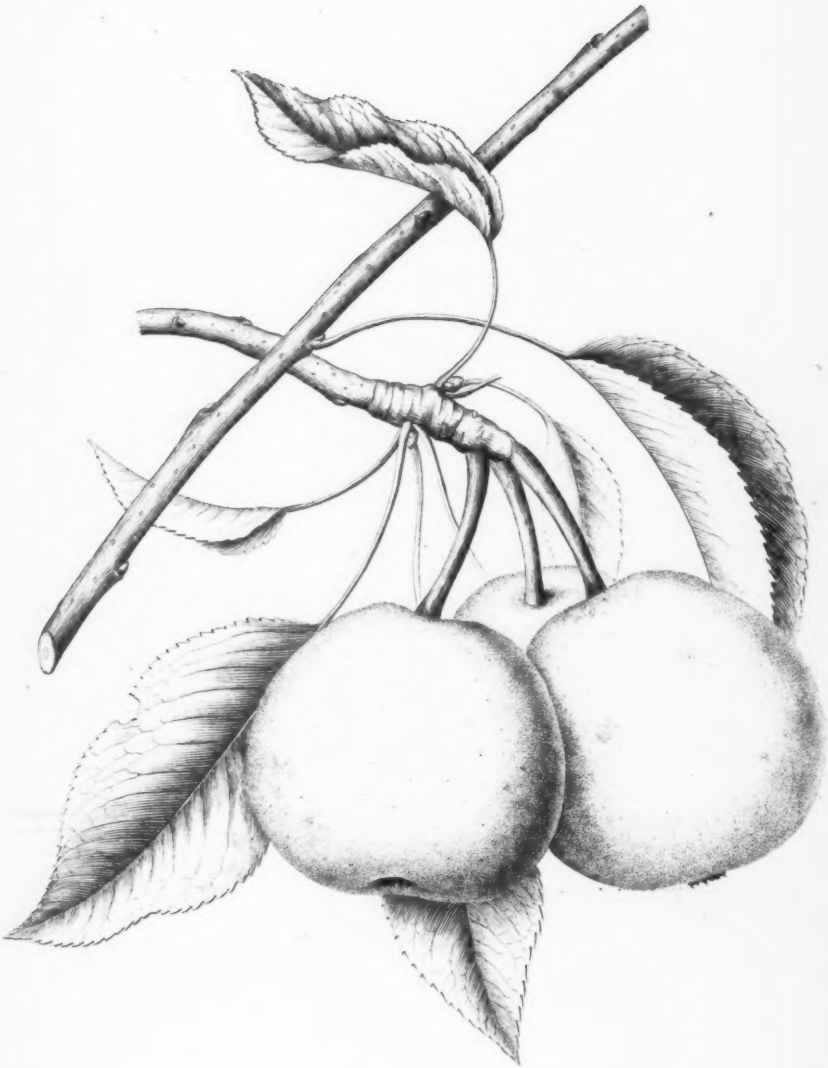
Boquets, from Mrs. Peay, Mrs. E. Dorsey, E. Wilson, Miss Winstanley, E. D. Hobbs, M. Bopert, and H. Nantz. Box of exquisite flowers, delicately arranged, from Mrs. Hancock, and a beautiful center-piece from Mrs. Peay.

The sales on Saturday next will be appropriated to the "Downing Monument," and an earnest appeal is made to all growers and lovers of fruits and flowers to make a noble contribution to the memory of one who has done more than any other individual to elevate the standard of taste, and to give an impulse to pomology and floriculture in this country, the benefits of which we are now enjoying. The officers of the Society, who have devoted their time and services to the encouragement of its objects, and who have derived no pecuniary benefit whatever therefrom, solicit from the cultivators, who have been enjoying the proceeds of the spirited sales at each exhibition, a generous contribution of their finest fruits and sweetest flowers, as an offering to enshrine the memory of their greatest and best friend! The names of the contributors, together with the amount of the sales of their contributions, will appear in the usual published reports of the Society. We trust that no name with which the public has become familiar during the present fruit season will be found wanting on this praiseworthy occasion.—*Louisville Courier.*

Berkshire (Mass.) Horticultural Society—Stockbridge Meeting, Sept. 9.—Although the meeting was called on very short notice, yet it was well attended, and the exhibitions of flowers, fruits, and vegetables were extensive and of very fair quality. The citizens of Stockbridge fully sustained the character they had before so richly earned—of strong devotion to the interests of the Society, and of hospitality to the world in general. The tables, decorations, and all the *et ceteras* at the Town Hall were in excellent order. The songs of the Stockbridge Juvenile Choir gave an item of interest of great worth, commanding the applause and gratitude of all. The exhibition of peaches was the best we have ever seen in this county, and contained one or two of the finest we ever saw any where. The pears, plums, and apples were good.

In flowers the exhibition was by far the finest we have had, no frost having touched the most delicate flower.

In vegetables, a period two weeks later might have shown some larger ones, but those presented were large enough.—*Culturist and Gazette.*



DOYENNE D' ETE' PEAR.